Coin-Op '83: Arcade Games Show Off

VIDEO GAMES™

K48964
July 1983
US $2.95
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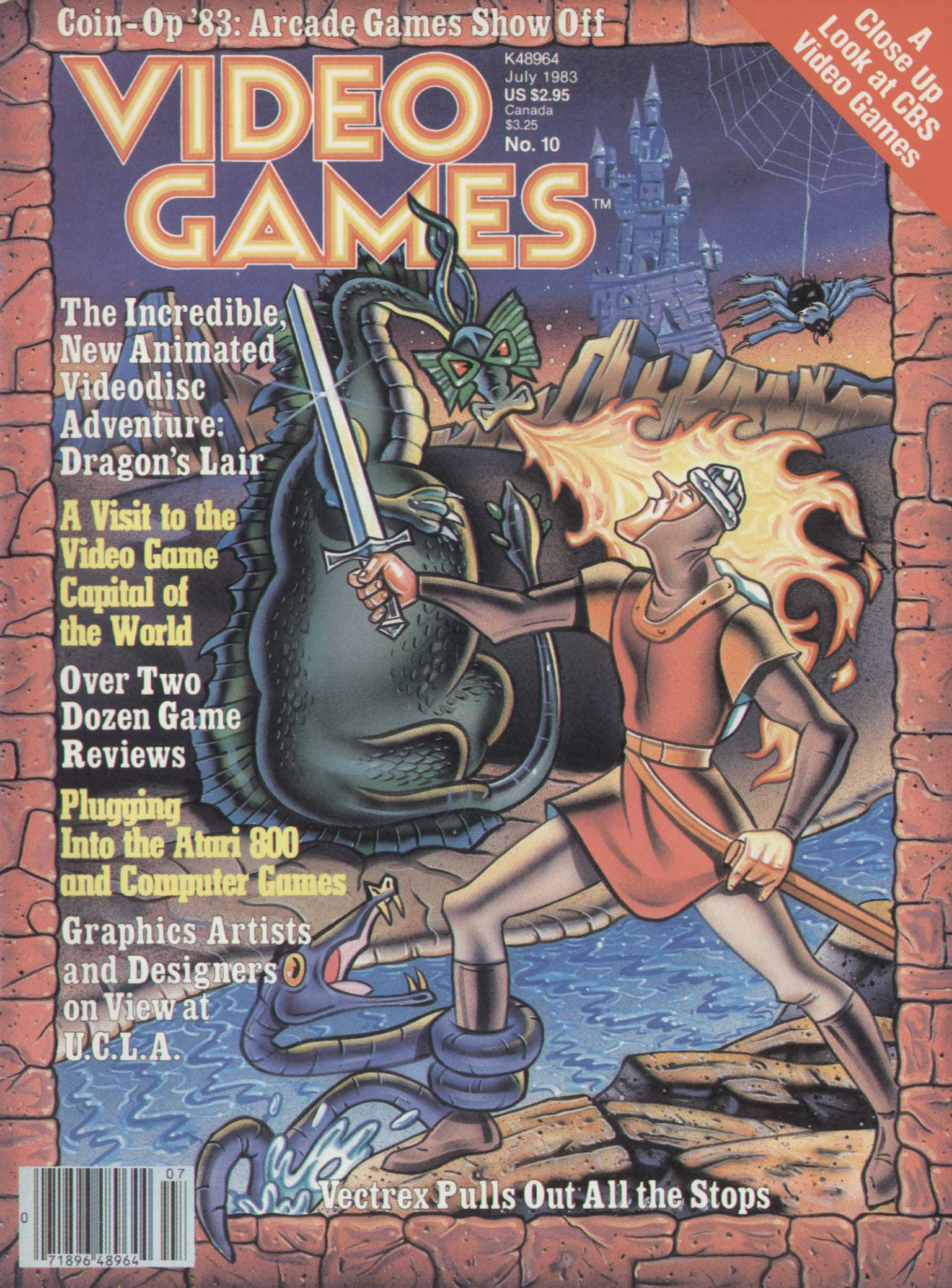
No. 10

A Close Up Look at CBS Video Games



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A computer that creates graphics more advanced than any other video game system.

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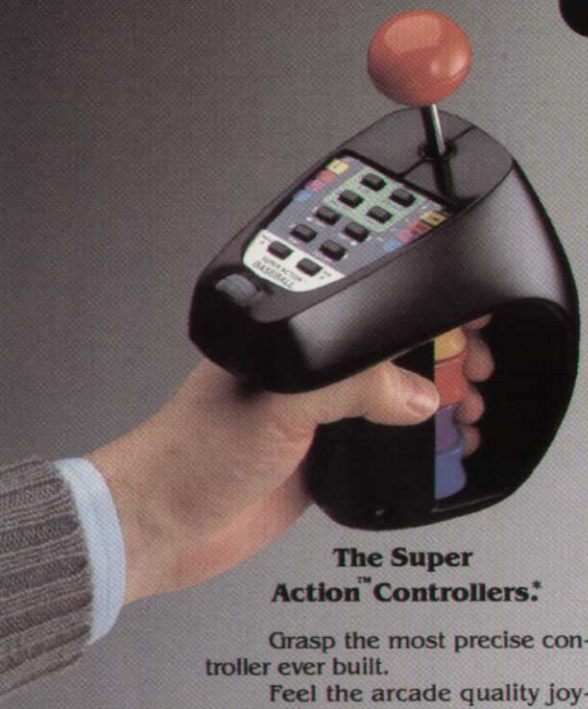

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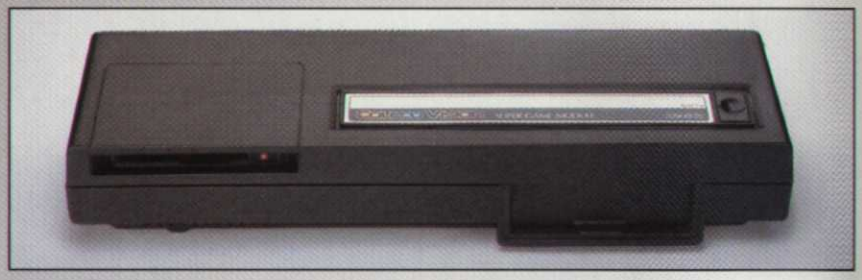

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VIDEO GAMES

Volume 1, Number 10 July 1983

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You might not find all the games previewed at AOE at your local arcade, but it couldn't hurt to acquaint yourself now with Zookeeper, Gyruss, Wacko, Mario Brothers, Sinistar and others.

FLIPSIDE 60

Stern's Mazer Blazer and Williams' Joust pinball combine somethings old with somethings new.

SOFT SPOT 64

You can catch the fireworks (some sizzlers, some duds) at home by plugging in the latest home carts, including Seaquest, Flash Gordon, Space Fury, Demolition Herby, Countermeasure, Microsurgeon and more.

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With GCE's Art Cart, Vectrex owners can unleash the artists within, and there's even more in store as the self-contained game system forges new ground.

HARDSELL 78

A classic endures as the Atari 800 gains recognition for its design, features and capabilities.

STATS 82

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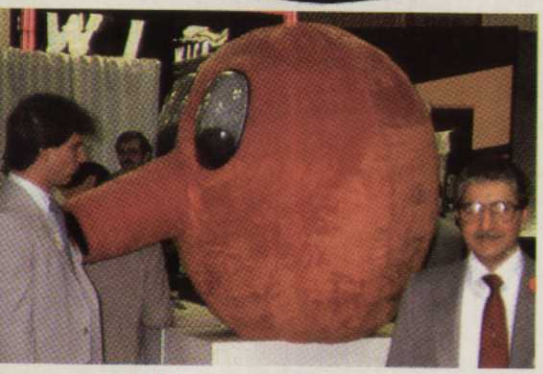

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Cover illustration by Jim Owens

SOME COMPANIES GO TO ALL CORNERS OF THE EARTH FOR NEW GAMES... WE'VE GONE A BIT FURTHER

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HYPERSPACE

With *VIDEO GAMES* rapidly approaching its first anniversary, it suddenly seemed to be an appropriate time to confront those remaining skeptics who have felt that the entire notion of games for the home, as well as the arcade, were nothing more than a passing fad, destined to suffer the same fate as the Hula Hoop or the Pet Rock. Well, funseekers, history and public desires regarding leisure time entertainment have more than proven that video games are here to stay.

This may seem like an almost needless enterprise to devote attention to. However, Wall Street analysts are sounding more like prophets of doom and gloom. The reason may be due to the failure of Data Age and U.S. Games, along with the lingering rumors of other software companies, to remain profitably in business, which could generate concern by those not truly informed about the nature of the game business. Add to this the picture being painted regarding coin-op trends and it would be easy to assume that all is not healthy in the world of video.

Unfortunately, this would be an assumption far too simplistic to be totally accurate or even reflective of the cyclical nature of the games business, which, instead, is going through a healthy period of weeding out the proverbial wheat from the chaff. All we are really seeing is the 'shake-out' period most have been anticipating for the past year and a half. After all, the days where anything went have long disappeared with the increased sophistication of players wanting more from their game play whether it's an arcade machine or home cart.

However, to take this as a barometer that the industry in general might be failing, is to miss a salient point that what's really happening is the intensity of competition has demanded better games and not merely variations on similar themes or knock-offs of knock-offs. Even the coin-op industry has fallen victim to the same predicament regarding innovation and not imitation. The problem with this segment of the game business is that arcade owners are more reluctant than ever before to risk investing in equipment which might not be an 'instant' hit. In addition, most locations are totally filled with no extra space to even accommodate a new model if it were to have potential.

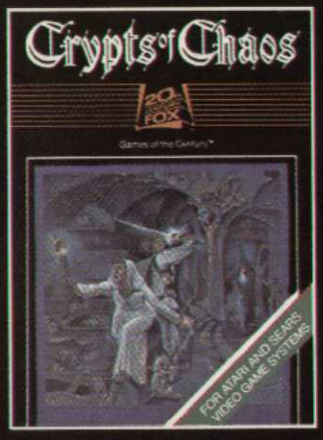
With all this in mind, we ventured to the spring extravaganza known as the AOE (Amusement Operators Expo), held in Chicago, for a preview of the summer's upcoming arcade games. On display were a potpourri of efforts leading many to believe that a new era is about to begin. *VIDEO GAMES* takes you onto the show floor and behind the scenes (beginning on page 38) for a closer look at the first animated laserdisc video game as well as a host of other games ready to make their appearance at your local arcade.

Besides design direction and programming, graphics is playing an increasingly important role in arcade machines, not to mention home carts, and you'll discover what the artists are thinking on page 70. As for game development, CBS Video Games has an innovative plan of attack which is revealed in an eye-opening interview (page 24) with the company's vice president, Robert Hunter.

Also in this issue of *VIDEO GAMES* you'll find another new column, "Game Efforts" (appearing on page 74) which updates the incredible developments of GCE's Vectrex game system. The self-contained unit continues to bring a new dimension to at-home entertainment. And, if you've ever wondered where the video game capital of the world is located, you'll find the answer and much more on page 30 as *VG* takes you to the action in America's heartland.

—Editor

IF STRATEGY ISN'T YOUR GAME, CRYPTS OF CHAOS WILL EAT YOU ALIVE.



It took the master at Fox video games to create Crypts of Chaos—the new strategy game that would challenge the mind of a sorcerer. It's a dark fantasy world of wondrous wizards and terrible trolls. There is treasure there. But to win it you will have to be very very clever. For it's guarded by dragons. And they have had their fill of witless players.

FOR YOUR ATARI VCS.

20th CENTURY FOX™

Games of the Century

Double Speak

The Debate Continues

Regarding your May issue of Coin-Op Shop, I suggest that you go easy on Nintendo. In the current Popeye cartoons on television, Popeye's nemesis is very definitely "someone called Brutus," despite the past Bluto moniker. So, I suggest you pick on the cartoonists, if you call their product cartoons.

Jay H. Wald
Whippany, N.J.

An overzealous editor is responsible for this blunder. However, the debate still rages between those who recall Bluto from the original comic strips and those who know him as Brutus for the made-for-TV cartoons.—Ed.

Sleepless Nights

I am interested in breaking the world's record of playing a video game continuously. I believe the current record is 28 hours on Pac-Man. I would like to break this by playing Pengo for 30 hours. I currently hold the world record on this game.

Kevin Leisner
Racine, Wis.

*The latest record for playing a game continuously is held by Donnie Norris of Wilmington, N.C. Norris walked into The Space Station on a Friday and didn't leave until the following Monday afternoon, after playing Q*Bert for 74 hours!—Ed.*

A Speedy Solution

Regarding a letter in the May issue on choosing ColecoVision levels while using replacement joysticks: There is a simple solution. Manufacturers, such as G.A.M.E.S., offer "Y" adapters that allow both the ColecoVision and replacement sticks to be attached to the same plug at the same time. That way, you can use two replacement sticks and select play level on the Coleco controller without unplugging anything.

Jay H. Wald
Whippany, N.J.

Higher and Higher

I would like to inquire about getting my name in *VIDEO GAMES* under the heading of High Scorers. My personal high score on the game Q*Bert is 287,735. I noticed that you did not have a listing for high scores for Q*Bert. I was wondering if that is because you have not received word of any high scores or if the high scores have not been made official. Also, do I need to have this high score made official, and if so, how do I go about it? I would appreciate it very much if you could give me any information.

John Weber
Bridgeton, Mo.

*Your high score isn't high enough to qualify as the number one Q*Bert player. Presently Ben Gold, of Dallas, Tex., has that honor with an outstanding 17,899,325. For more information on how to have your score ranked officially, see the answer to Peter Kovkios' letter.—Ed.*

I scored 10,109,050 points on Joust (Williams). It took me four hours to do it on Sunday, March 27, 1983. After I turned the score counter over at 10,000,000, I just ran out all my extra guys, letting them all die. Since the counter can only record 9,999,999 I saw no sense continuing. I could have kept going for days after I hit 10,000,000.I had about 200 extra guys left. I'm 14 years old. Your magazine lists the high score on Joust as 1,553,600. It seems my 10,109,050 has to be a world's record. I enjoy buying your magazine and look forward to it every month. Please record my new high score in your magazine. Thank you very much.

Michael Chilzer
Belle Vernon, Pa.

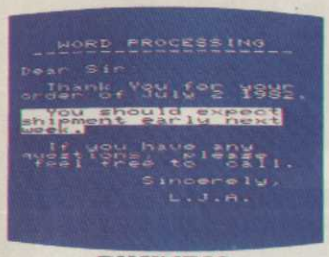
The latest high score on Joust (new chip), achieved by Ben Weiss of San Jose, Calif., is 33,167,250. For more high scores see our Stats on page 82. For more information on making your scores official see the answer to the next letter.—Ed.

I am sending you my own score report form because I don't know what the proper procedure would be in order for me to be recognized as high scorer of Solar Fox. You don't state anywhere in *VIDEO GAMES* magazine how one can report a high score so that's why I went ahead and made a form out. I hope the necessary information is included on the form in order for my high score of 1,140,410 to be recognized in *VG*'s high scorer list. Thanks again.

Peter Kovkios
Miami, Fla.

According to the folks at Twin Galaxies International Scoreboard, the top score on Solar Fox with a seven man start is 1,763,700 and with a three man start is 1,416,800. Twin tells us that you might very well qualify as the country's number two ranked player on the game. To find out send a self-addressed, stamped envelope to Walter Day, Jr., Twin Galaxies International Scoreboard, 226 East Main St., Ottumwa, Ia., 52501 and they will forward the necessary forms. Twin also operates a hotline: (515) 684-6421. Good luck.—Ed. *(Continued on page 62)*

IF YOU OWN A COMMODORE COMPUTER, YOU KNOW IT CAN DO ALL THIS.



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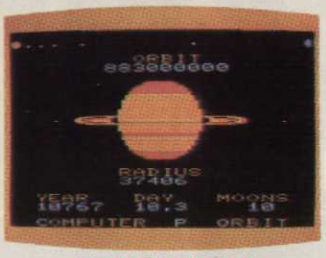

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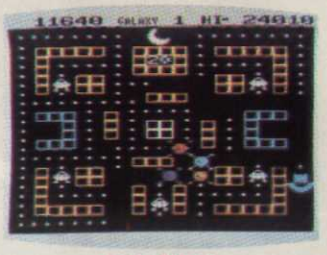

GAMES

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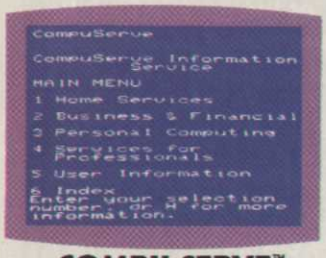

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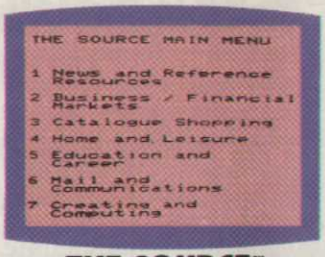

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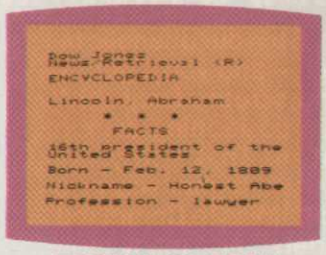

ENCYCLOPEDIA

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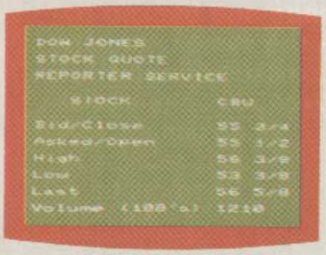

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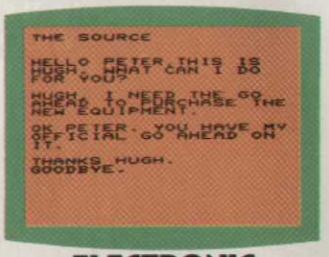

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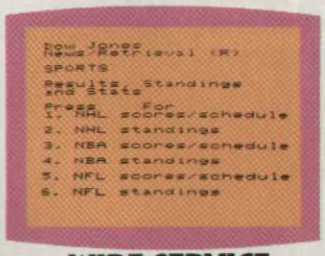

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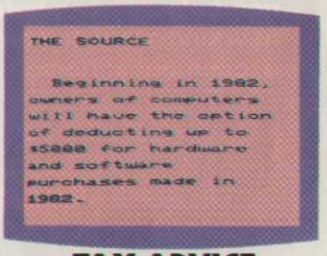

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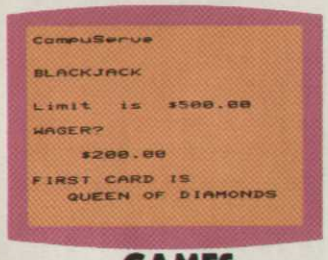

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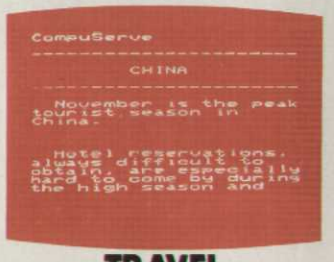

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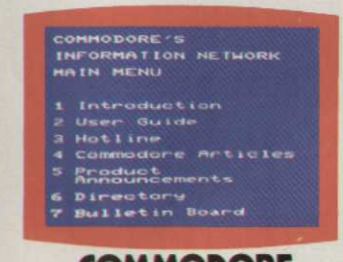

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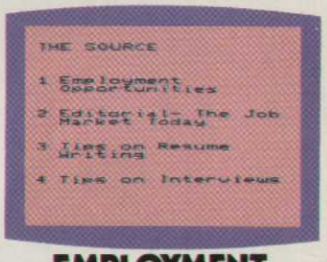

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BLIPS

A Fight to the Finish

David Lightman is onto something. His home-built computer has already introduced him to other computer geniuses and allowed him to tap into high-security banks to make alterations on data (such as his grades). He's even been able to play new video games while they're still in the testing phase. On one such electronic journey, the high school student finds himself in the midst of an unidentified computer system that appears to contain the biggest game program in the world. The only thing is, this computer, called Joshua, is actually the Defense Department's wargames computer and Lightman's game playing has actually kicked off a program which simulates a Soviet nuclear attack. In little more than 27 hours, Lightman must find the man who taught Joshua how to think, thereby preventing a nuclear holocaust.

This chilling story, written by Lawrence Lasker and Walter F. Parkes, and directed by John Badham, is the plot of MGM/UA's latest film offering, *WarGames,* released nationwide in June. "There is a new reality called the information network— where all those computers and telephones are connected," says Parkes. "In a way, David's computer is his own fantasy world. But it turns out in the end to be more real than 'the real world' because it's his understanding of the way machines work that allows him to stop—or at least forestall—World War III."

After a nationwide talent search executive producer Leonard Goldberg and producer Harold Schneider awarded the role of Lightman to Matthew Broderick, whose first screen role was in the recent *Max Dugan Returns.* Tony award-winner John Wood is cast as professor Stephen Falken, the creator of Joshua, who goes into retirement with a false identity when he discovers the government's plan for his invention. Others in the cast include Dabney Coleman, as Dr. John McKittrick, a senior adviser with the Defense Department; Ally Sheedy, as Jennifer, David's love interest; Juanin Clay as Defense Department employee Patricia Healy; Barry Corbin as General Jack Beringer, chief commanding officer of NORAD (North American Air Defense Command); and Dennis Lipscomb as Watson, a top Washington bureaucrat concerned about the possibility of human error in responding to a nuclear attack.

Photos © MGM/UA

Lightman (Matthew Broderick) begins his computer odyssey.

Dr. McKittrick (Dabney Coleman), Major Lem (Duncan Wilmore) and Pat Healy (Juanin Clay) at command center. Could this mean war?

The film, which took three years from script to screen, was filmed on location in Seattle, Washington, home of David Lightman. From there production was moved to the MGM/UA sound stages where production designer Angelo Graham created multi-million dollar sets to authentically simulate the Defense Department's nerve center. Leading manufacturers, such as Memorex, Diablo, Data Products and Electrohome, contributed computer equipment for NORAD's underground facilities, while Washington state served for the exterior sequences of NORAD.

Says director Badham, "*WarGames* is an exciting story about a 17-year-old Seattle high school student getting in way, way over his head, into things he never anticipated, and having to use his wits and intelligence to get through this adventure. It's much bigger than any kind of game David could imagine— it becomes a real-life game."

—Sue Adamo

Shell Shock

All you Turtle fans out there who can no longer find the game in your local arcade can come out of your shells now. Odyssey is resurrecting Turtles and in doing so is sponsoring a "Win One for the Turtle" contest and all you have to do to win is fill out an entry form. Odyssey is giving away 50 six-foot Odyssey home arcade centers complete with a 19-inch Magnavox color television, the Odyssey² console, and a Turtles game in each.

The new game cart is modeled after its original arcade counterpart made by Stern. The basic maze action revolves around players trying to guide the mother turtle to hidden turtlettes without getting bugged by the beetles chasing her. Also featured are sound effects when played with the Odyssey voice module.

The entry forms are available from Odyssey dealers and the contest will run through June 30th.

—L.M.

Beware of the Hot Tomato

The first package arrived in editors' offices across the country sometime last March. Inside was a full-size bottle of ketchup labelled "Once the Tomatoes Take Over, Will We Ever Ketchup???" Nothing more. This was followed up, almost on a daily basis, with tomato juice, tomato soup, whole tomatoes and, finally, a horned tomato beach ball. Who was behind this tempting promotion? The final package, containing a Revenge of the Beefsteak Tomato cart, made all fingers point to Santa Clara, Calif., home base of Fox Video Games, Inc.

The game, available in formats for the Atari VCS 2600, VIC-20 and Atari 400/800 computers, is a challenge for videophiles where the object is to isolate killer tomato plants behind brick walls before they take over en masse.

Other Fox games that were released in June include the Alligator People (2600), Butch Cassidy and the Sundance Kid (2600, 400/800), Porky's (2600, VIC-20, TI 99/4A, 400/800, Intellivision and ColecoVision) and Voyage to the Bottom of the Sea (2600, 400/800).

—S.A.

Pinpoint Precision

Sure your fellow players know what your strong games are. But what about those who dwell outside the arcade? Well, Atari's found what they hope will become a fashionable way to wear your games proudly, with custom-designed, hard-fired metal coin-op video pins. These pins will not only show your personal loyalty to specific games but will also mark you as a true Atarian (not to mention the wonderful one-liners you can employ at single's night at the local arcade: "Oh, do you like Kangaroo, too?")

Currently available at local game centers are pins for Space Duel, Asteroids, Battlezone, Tempest, Kangaroo, Missile Command, Asteroids Deluxe, Centipede, Dig Dug, Gravitar, Pole Position, Millipede, and Liberator. Each sells for about $3.50 and can also be obtained by ordering through Atari Coin-Op, 1105 North Fair Oaks, Sunnyvale, Calif. 94086.

—Linda Moran

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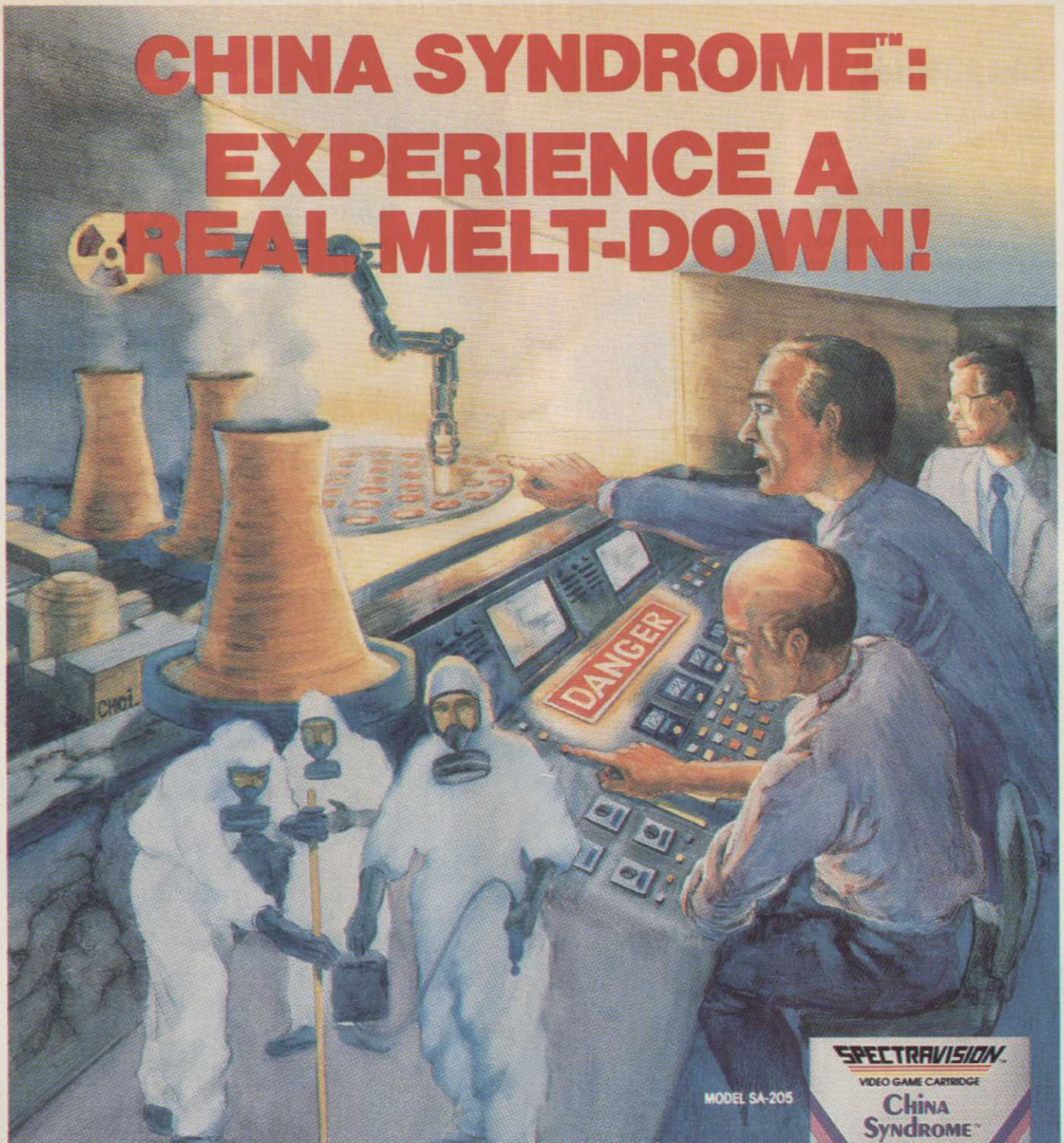

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Easy Rider

Strap into your seat harness then check your gauges and controls. Switch on the video screen, give the launch manager the signal and you're ready to lift off into space and wage battle against alien forces.

This time, though, it's more than mere imagination, since you're in charge of a spherical spacecraft, levitated on a 100-mile-an-hour blast of air from an electric turbine. You pilot the ship, the Saker One Space Probe, via a joystick, which controls small airflaps on the Saker and lets you maneuver among the menacing battalions. And you're vanquishing not just pixel-aliens, but fully-detailed, movie-quality spaceships.

The Saker (named after a European falcon) is the brainchild of John Sassak of SCD Inc., Livonia, Mich. Sassak, who created an early Pong game back in '73, got the idea for the Saker from a department store demonstration which featured ping pong and beach balls blowing around at the end of a vacuum cleaner's exhaust hose. Sassak, of course, wondered what it would be like to be inside the balls.

Sassak's automotive automatic company constructed a human-scale version. At first, it was just a diversion, Sassak says. "If we get tired of designing the automation, we jump into these projects. We pieced together two helicopter bubbles, blew it up in the air and we found out what it felt like." Then Sassak saw the commercial market possibilities and has spent the last six or seven years designing the machine for mass production. The production model Saker is made of structural foam that features two plexiglass side windows and hatch, and put it atop a base similar to the exhaust cone of a rocket. A specially-designed electric turbine in the base then generates a blast of air that puts the craft afloat. The prototype Saker, which is currently residing at Diamond J's Lounge in Livonia, is four feet wide and gives the player two and a half minutes in the Saker for only $2. The production version is expected to be a foot-and-a-half to two-feet wider and will use one joystick instead of the prototype's two.

A coin-op adventure unlike any other.

Photos by David M. Stewart

John Sassak, creator of the Saker One.

Inside, you can adjust the seat for the kind of action you want: putting yourself below the center of gravity, and you stabilize the Saker, so that you can pitch, roll and yaw. Put yourself above the center of gravity, and you can flip head over heels. And, since you're harnessed in, it's perfectly safe. But learning how to handle the Saker takes time and patience. This writer's first ride was little more than a matter of trying desperately to connect the manipulation of the joystick to any particular motion. It was also a thrill.

The real trick, however, is to coordinate your flight with your fight, so that you can play the video game. The screen on the instrument panel displays a videotape space dogfight, and the Saker feeds in its own lasers so you can fly in, zap selected starships, and watch your screen explode. The concept is similar to Sega's Astron Belt (*VG* April '83, p. 17), but with the Saker you're (almost) really flying through the scene, so you feel yourself tossing in sharp turns, flying straight up, or hanging upside-down. "Your imagination just has to go when you're in this thing," Sassak laughs.

The Saker One Space Probe should be in bars, arcades, and theaters by the end of the summer. And there are big plans for the future. Sassak has a movie in the works that will feature the Saker; 20th Century Fox wants to use it in a science fiction film called *Millenium*; and there is talk of a chain of "Saker One Space Centers" built around this effort, as well as other flight-simulation games.

—David M. Stewart

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A Seemingly Never Ending Courtship

Like a blossom in spring, Nolan Bushnell was suddenly everywhere. His face graced the covers of electronic entertainment magazines and his name appeared in newspaper columns around the country. But all that coverage got the "father of video games" in trouble when Atari Inc., the company Bushnell founded, filed suit against him in April seeking to stop him from competing against the firm.

When Bushnell sold Atari to Warner Communications in 1976, he agreed not to compete with the company until October 1983. However, in the flurry of publicity this spring, Bushnell let the world know he planned to re-enter the market on October 1. "Starting October 1, we're going to let everyone know what the world's going to be like—we're going to redefine this industry," Bushnell said to syndicated business columnist Dan Dorfman. He also told Dorfman that he expects $40 million in sales for video game manufacturing in 1984 and a 40 percent share of the coin-op manufacturing market by 1986.

Photo by Charles Moore

Atari and its founder, Nolan Bushnell, will be getting back together again. . . in court.

These kinds of statements violate the spirit of the 1976 contract, Atari claims in its lawsuit that charges Bushnell with trying to lure customers prior to the expiration date of the contract. To further support its claim, Atari points to Bushnell's purchase of Videa, Inc., a video game research and development firm, and his attempts to secure financing for developing games.

Atari's lawsuit, filed in Santa Clara County Superior Court, seeks injunctive relief to stop Bushnell from competing for at least another year. The suit does not outline specific damages, but asks for whatever profits Bushnell might make from breaching the agreement.

A spokesperson for Bushnell's Pizza Time Theater says the Atari suit is without merit and adds, "We intend to fight it vigorously. We have said in our annual report that we will begin designing and manufacturing proprietary games, but we are not intending to do that before the expiration date of the contract."

The case could bring up an interesting legal debate about whether the actual development of video games begins in the conception stage or the physical manufacture of them. The view from the Pizza Time Theater spokesperson is that "we don't know how they can stop someone from thinking and having ideas."

Off the record, industry observers have commented that Atari's move looks like a nuisance suit designed to slow down the energetic Bushnell. Said one: "It seems like they're awfully frightened of Nolan to do this." Atari offers no comment.

A hearing on the case is scheduled for the first week of May.

—Mary Claire Blakeman

For Designing Minds Only

A challenge to all home computer owners to design an original arcade game has been issued by Broderbund. Their Arcade Machine contest has been in progress since January and will run a six-month course. But it's not too late to get into the action if you haven't done so, since the deadline is through June 30.

In order to participate you need a Broderbund The Arcade Machine program ($59.95), which can be purchased at any retail outlet selling Apple- or Atari-compatible software.

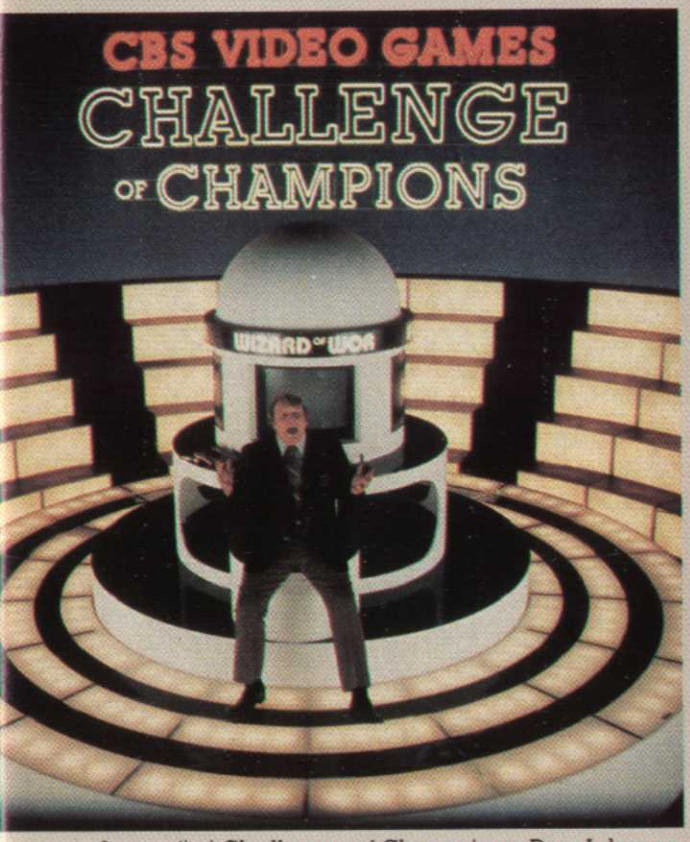
Entries will be judged on creativity, originality, playability and the extent to which the features of The Arcade-Machine program are utilized. One winner for each month will be chosen. Judges for the contest consist of a panel of game-design pros including Bill Budge, Chris Jochunson (co-creator of The Arcade Machine), David Snider (designer of David's Midnight Magic), Dan Gorlin (designer of Choplifter) and Broderbund executives Doug and Gary Carlston. The six finalists will then be eligible for the grand prize of $1500 worth of hardware and software with the runner-up prize being $500 of the same. The lucky winners will be announced this month.

Further details outlining the contest can be found in The Arcade Machine package by Broderbund or by writing directly to the company at 1938 Fourth Street, San Rafael, Calif. 94901.

—L.M.

Al Lesiak and family were the first winners in Broderbund's contest.

Winning at 'Wizard of Wor' and 'Gorf.' By John Madden.



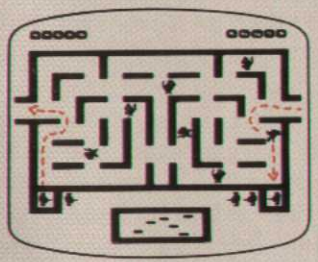
In our first Challenge of Champions, Ray Johnson of Los Angeles defeated Tony Sarkis of New York and David Hayes, a student at Cal Tech, defeated Brian Anderson, a student at MIT.

As the sportscaster for CBS Video Games, I get a chance to watch some of the best players in the country in the "Challenge of Champions."

Here are some of their winning strategies.

Wizard of Wor™: You start with three worriors. The object of this game is to defeat the Wizard, his henchmen and your opponent. This is a game you can play alone, or two can play simultaneously. When two play, you have to worry about getting zapped by your opponent as well as the Wizard, and his gang.

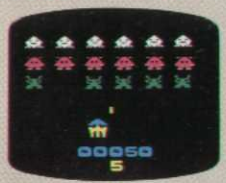
Here's an interesting move you might want to try. Get out into the maze fast, zip out of the escape door, come back in through the opposite side. If you're quick enough, you'll be in perfect position to blitz your opponent's three worriors before they can score any points. The ultimate shutout.



Another variation is to work together. Make a pact not to hit each other (accidents do happen, of course) and go for the record score: 99,500 by Frank Merollo (10/82) and Buz Pryzby (8/82)*

'These are two tough games, but I know you're up to the challenge.'

Gorf™ is four boards in one game. Your father will enjoy this game because with a little luck, he'll be able to go through the four boards a couple of times, but after the third level it starts to get faster...and faster.



Coaching tips: patience

Stick & move

Get position

Hit it high

That's when you separate the players from the parents. You start out aggressively and after 10,000 points the bombs and torpedoes start to come hot and heavy, so be prepared to change to a defensive game plan.

The record high score is still 32,700 by Horace Eckerstrom (9/82),* which gives you some idea of how hard this game is.

Both Wizard of Wor and Gorf are made for the Atari® 2600 System.™ (Look for Intellivision® versions soon.) They're really tough, and the more you play them, the more you'll like them.

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*High scores as of this printing.

CBS Video Games
Are you up to the challenge?

Between the Covers of Star Raiders

Pilot Jedediah Poole and Tommy Hardtack in the cockpit.

Art by Jose Luis Garcia-Lopez
© 1983 DC Comics, Inc. used with permission.

What could follow Pac-Man to television or Donkey Kong to bubble gum cards? How about Star Raiders as a comic book? Well, next month, DC Comics will be releasing Star Raiders as a 64-page trade paperback. The comic ($5.95), called an album because of its size and production values, will be printed on heavy stock paper, use a fuller rainbow of colors than most newsstand comics, and comes as an outgrowth of DC's association with Atari (discussed in *VG*'s January issue). At one time, both companies were planning to jointly produce comic books featuring the adventures and characters of popular Atari games. It appears that budget pressures have forced those plans to be scuttled for now.

According to DC special projects editor Andrew Helfer, the Star Raiders' project was one of the more fully-developed and best-received concepts to be considered for this format. Over a year ago, Helfer called comics writer Elliott Maggin, who had given up writing *Superman* some time before and was teaching in upstate New York. "He liked the idea and then found out it was for Star Raiders. He loves the game and had been playing it on his computer before the video cartridge came out," Helfer explains. "He was very eager to do the project."

One of the nasty, mind-controlled Zylons makes its move.

Another factor that convinced Maggin was the idea of working with Jose Luis Garcia-Lopez, one of the best and most underrated comics artists today. "Jose has been doing many comics and one-shot projects but has never been associated with any one series, which is why a large number of people overlook his dynamic talents," Helfer says.

Maggin worked out some ideas on how to translate the game, in the shoot-'em-up vein, into an involving story. He and Helfer decided it was necessary to broaden the scope of the game by infusing some fresh ideas. The Zylon enemy ships, they decided, were manned by mindless, insect-like drones, controlled by

A Hukka observes a dogfight and, right, sits atop Ezekiel Vickar's shoulder watching an instant replay of battle preparations.

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an overpowering menace in the Dragon Lady vein.

Garcia-Lopez enthusiastically began developing ideas of his own on how the comic should look. Rather than produce typical line drawings and add color to them, he decided to pencil the pages and use a variety of dyes, inks and paints to complete the art, giving it a unique appearance. Helfer had Garcia-Lopez try his hand at the game on a visit to the DC offices in Manhattan. Armed with some experience and detailed diagrams from Maggin, the artist then set about designing a new universe. Those who have seen the completed work admit it is some of the most dynamic comic art around.

Original plans called for Star Raiders to be one of several stories in an Atari comic, but when the decision came to turn it into an album, the idea had to be altered. Rather than four 20-page chapters, Maggin had to rework the story into one 62-page adventure. Everything is resolved, Helfer says, although there is always room for a return visit to the series if sales warrant the move.

"What we attempted to do is give an identity to the pieces that are shown in the game," Helfer reports. "We introduced crews aboard the space ships and gave everyone a common evil to fight. It works as the next step of the game play and it works as an exciting comic story."

DC has not announced further plans regarding other Atari-related material, although the *Atari Force* will be receiving its own monthly newsstand comic in September. —*Robert Greenberger*

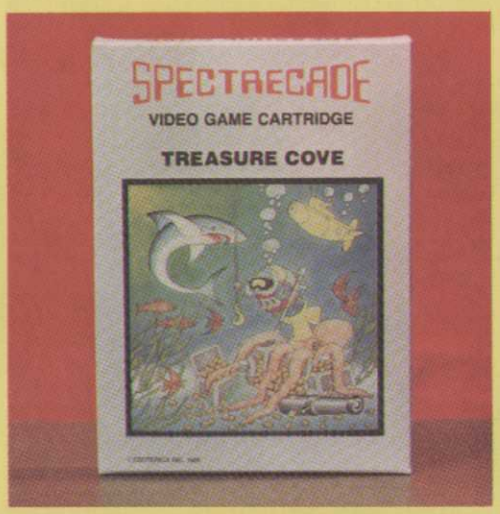
Little Egypt

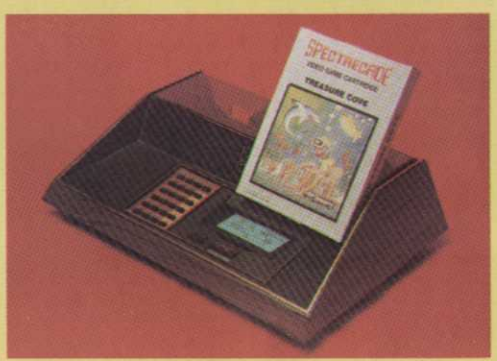
Charles Compton, 30, didn't have to leave his Santa Monica, Calif. home and travel to the ancient ruins of Egypt to win Imagic's Riddle of the Sphinx contest. All he had to do was correctly solve the riddle with a creative, intriguing answer. And what could be more creative than supplying the answer, in story form, on a 12-foot-long Egyptian scroll using authentic hieroglyphics?

"I even came up with a way the ancient Egyptians might have written 'Imagic' if the company existed then," Compton says proudly.

For his efforts Compton, who has long been interested in Egyptology and claims he began playing video games to help him quit smoking, won $1,000. With that amount Compton could, if he decided, visit the land of the Pharoah in person. —*S.A.* ▲

Imagic games designer Bob Smith (left) gives Compton $1,000 .





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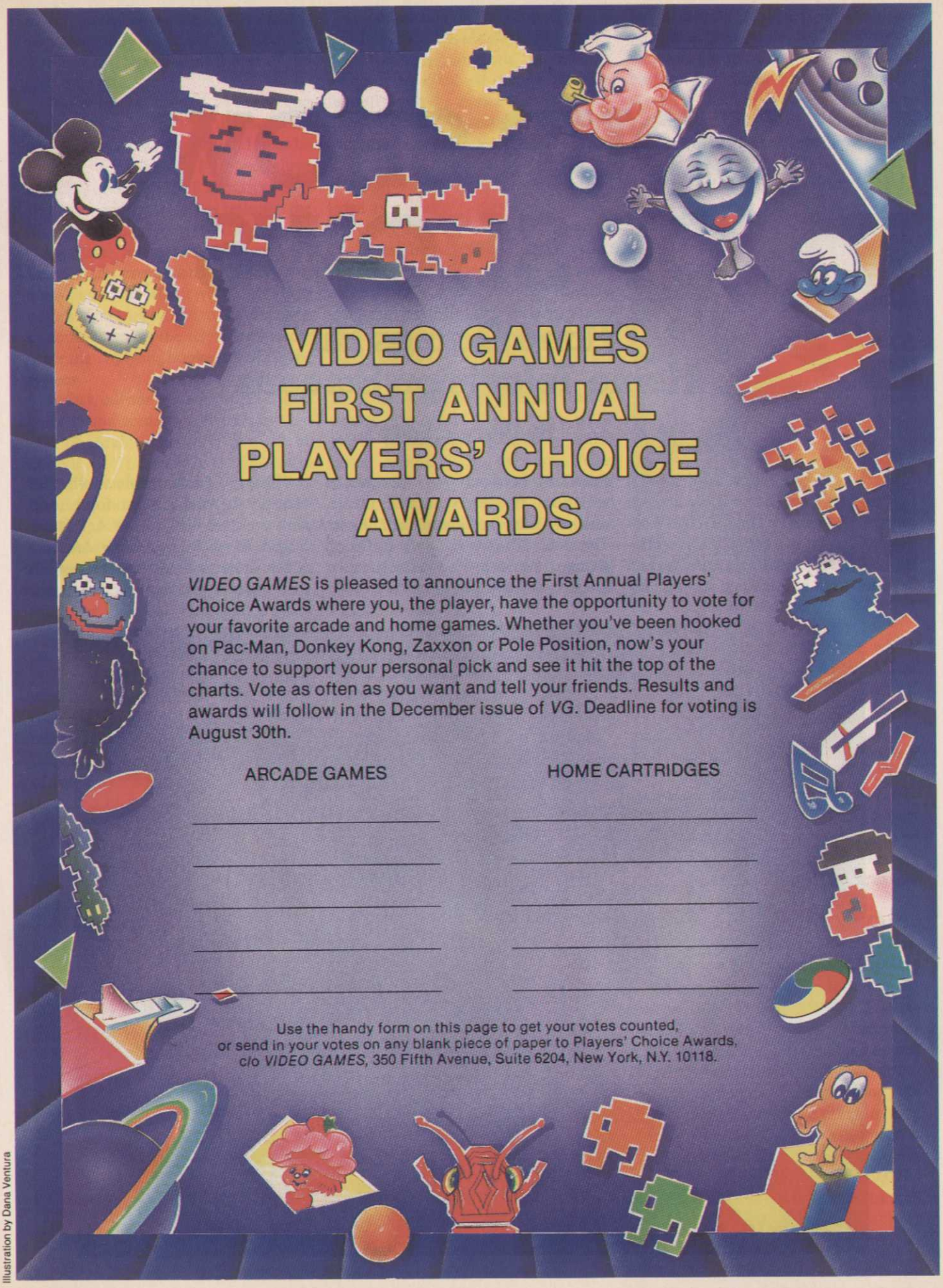

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VIDEO GAMES is pleased to announce the First Annual Players' Choice Awards where you, the player, have the opportunity to vote for your favorite arcade and home games. Whether you've been hooked on Pac-Man, Donkey Kong, Zaxxon or Pole Position, now's your chance to support your personal pick and see it hit the top of the charts. Vote as often as you want and tell your friends. Results and awards will follow in the December issue of *VG*. Deadline for voting is August 30th.

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Use the handy form on this page to get your votes counted, or send in your votes on any blank piece of paper to Players' Choice Awards, c/o *VIDEO GAMES*, 350 Fifth Avenue, Suite 6204, New York, N.Y. 10118.

Illustration by Dana Ventura

YOUR SHOW OF SHOWS

Video Games Hit Home Television Screens

By Barry Schuler

Some still linger in memories, such as *Jeopardy* with Art Fleming or Hugh Downs leading contestants in a battle of *Concentration*. They have endured as tributes and legacies from another era, having long since been replaced by a vast array of variations on the venerable theme, which includes the likes of *Card Sharks*, *The New $25,000 Pyramid* (inflation changed this one over from its older $10,000 version), and *Battlestars*.

These are the remnants of what has become an American art form. And, with the exception of the Art James-hosted *Magnificent Marble Machine*, which attempted to capitalize on the then universal popularity and chic status

Photos by David Shepherd

of pinball machines, the daytime television game show has never truly been influenced by the prevalent trends of the coin-op world.

This could be deemed an interesting phenomenon in light of the fact that television has long been referred to as the "pulse" of America. For over three decades, network as well as independent stations' programming has reflected the mood and interests of society at any given time. Since video games have become the preeminent entertainment attraction of the '80s, it would seem only natural that they would make their way in some form to the television screen, other than by being hooked up to a game system.

In fact, outside of some cameo roles in background scenes (ever catch the layout of Archie Bunker's bar, or an episode of *The Incredible Hulk* when David Banner/Bill Bixby worked in an arcade?), an appearance on *That's Incredible,* subject matter for an hour on *Donahue,* the inspiration behind a Saturday morning cartoon show, or as a feature on the evening news, coin-op machines have only scratched the surface of what their potential role can be on television. However, the time may just be right for all of this to change. And what better place for everything to start, than as inspiration for a new style of television game show, which hasn't forgotten the basic principles, in terms of format, established over the years?

The brainchild of JM Productions, a San Francisco-based television production company, *Starcade* successfully manages to combine arcade machine favorites with the more traditional question and answer segments we've all come to love as the main staple of the game show. The end result is an entertaining program which tests video game knowledge as well as playing skills.

The set up is a familiar one in which two contestants face off against each other in a quiz based entirely on video game trivia. The winner of this round is given the opportunity to select an arcade game, from the five on stage, with each player allotted 50 seconds to show off his/her prowess and see who can score the most points. Victory here means a chance at a bonus board where, if the player can identify a series of video game screens, prizes can be won. After this process has been repeated until four of the five arcade games have been played, the contestant with the highest total of points is declared the champion — an accomplishment which is guaranteed to bring at least some measure of local fame and fortune.

Taken as a whole, and within the context of what is trying to be accomplished, *Starcade* affords an opportunity for video games to not only attain some credibility as a spectator sport, but also as a viable resource for bits of information and related facts. In addition, given the fact that you're able to watch different players' strategies on the most popular arcade games, tends to provide the basis for some discretionary viewer participation when you find yourself second guessing how a contestant has played a particular game. The reaction is always one in which you're thinking, "If I were up there, I would have done much better." Admittedly, the temptation to be a "Monday morning joysticker" is irresistible.

The co-producers of *Starcade*, which is currently airing on Mondays on Atlanta Superstation WTBS at 5 P.M. (check your local listings for the day and time in your area), Jim Caruso and Mavis Arthur, are busy gearing up for an increase to daily shows and national syndication due to some very favorable, and growing, ratings. However, as is the case with most ventures, what often appears to be an overnight success story is often the result of a long, hard struggle. *Starcade* is no exception.

The concept evolved from Caruso and Arthur's desire to produce a television show about personal computers and other related technologies but, in the course of their work, one topic kept reappearing—video games. When this showed no signs of abating, both agreed to change their thinking and direct attention to somehow incorporating the games into an acceptable programming format. *Starcade,* as it is seen today, is the result of two years of work and development. Next issue, in *VIDEO GAMES,* an interview with director and co-producer Jim Caruso offers a closer look behind the scenes of *Starcade.* ▲

Robert L. Hunter

Casting an Eye on CBS Video Games

". . . it's an industry that runs on hits and those hits are based partly on the product itself, whether it's entertaining or not, and partly on a little luck, along with the proper presentation of that game's appeal in the marketplace. . ."

By Roy Trakin

Having traveled an evolutionary path in the entertainment business, Robert Hunter seemed destined to reach his current position as vice president of CBS's newly-formed video games division. The 29-year-old MIT grad has been with the company almost nine years, starting out in the publishing group before serving as a financial officer for the record label. An early association with current CBS Columbia Group president, Thomas Kerwin, led Hunter into an enviable position of "trying to figure out ways for CBS to distribute its computer-based information." He eventually deduced that CBS should take advantage of its experience in the entertainment field by becoming involved with computer software in the form of video game cartridges. Kerwin then established CBS Video Games as a division of the parents' toy and game division, Gabriel Industries, putting his prodigy, Hunter, at the helm.

About a year ago, CBS Video Games released its first two titles: Gorf and Wizard of Wor, both licensed from Bally/Midway and compatible with the Atari VCS. Since then, the company inked a deal to market, manufacture and sell Coleco hardware and software outside of the U.S. and Japan, while recently developing CBS Software programs for the Atari 400/800 home computers as well as the Commodore VIC-20. Hunter is especially proud of a new RAM Plus chip, which CBS claims triples the capabilities of the Atari VCS and offers graphics superior to Mattel's Intellivision, Magnavox's Odyssey 2 and other first-generation home video game machines. The first two games which utilize this chip have just been released—Wings and Tunnel Runner.

The nattily-attired Hunter greets me in his Madison Avenue high-rise office. Evidence of his enthusiasm for video games is apparent with a quick glance around the room: equipment and toys fill every available space. Although his background is in finance and marketing, Hunter is a hands-on guy. "I was an original owner of Pong," he says proudly.

So, even while talking about "CBS' corporate mission," Rob Hunter comes across as being very enthusiastic regarding what he's doing. He even tries to put this writer at ease by reminiscing about his own days as a journalist, a career he abandoned when he found out how paltry the wages were.

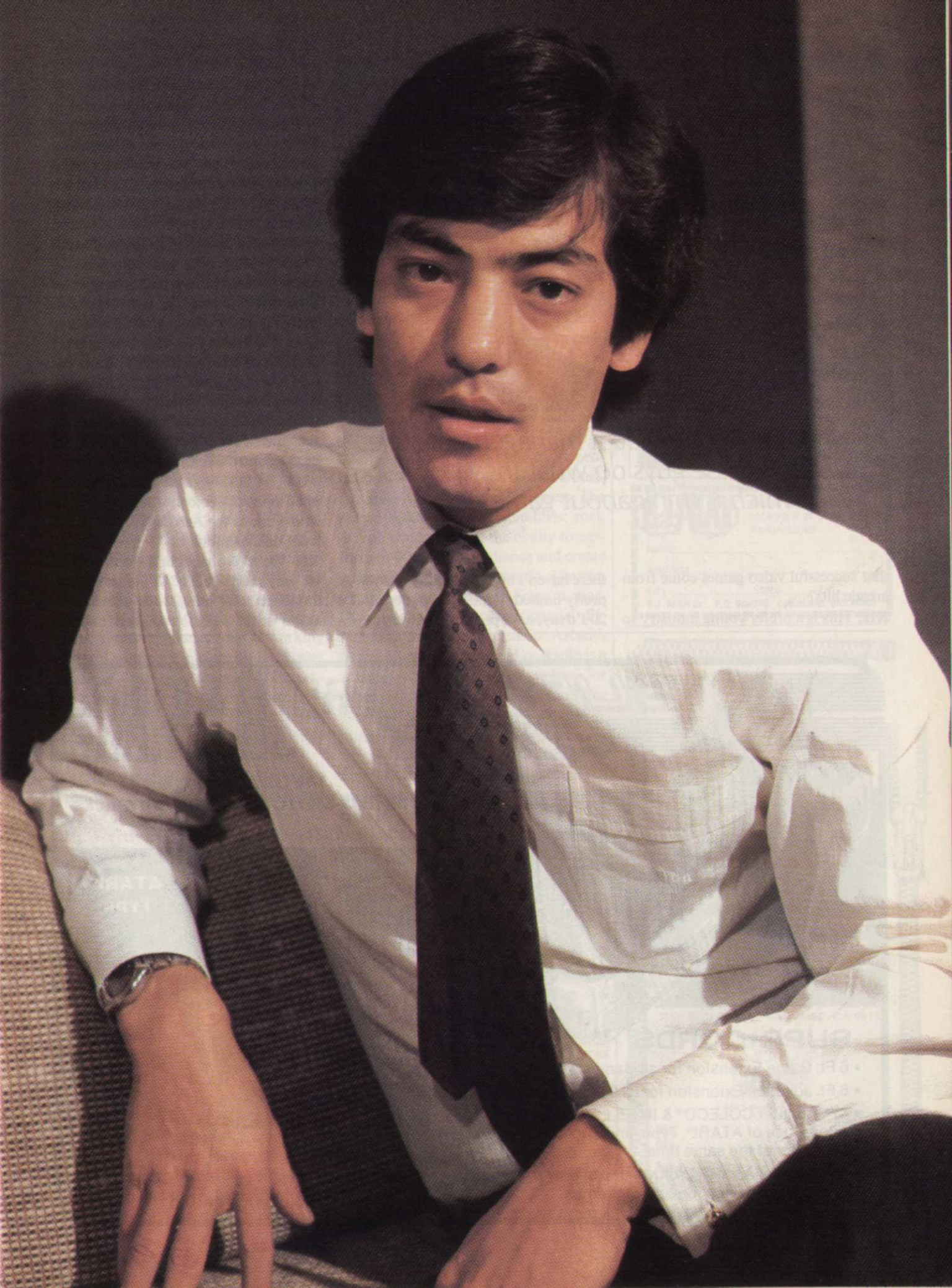
Thomas Merwin has openly stated that he wants CBS "to take a leadership role in new businesses being opened up by the new technologies." Certainly CBS' vast marketing and organizational skills should be put to good use by the new video games branch especially with ex-football coach and current Miller Lite superstar John Madden having been signed on as a corporate spokesman. Robert Hunter is pretty confident and so far, he's made all the correct moves in not only signing a deal with Bally/Midway, but also working to improve game play. As for the long run, the verdict is still out but one thing is certain—we haven't seen the last of CBS as an upcoming software force.

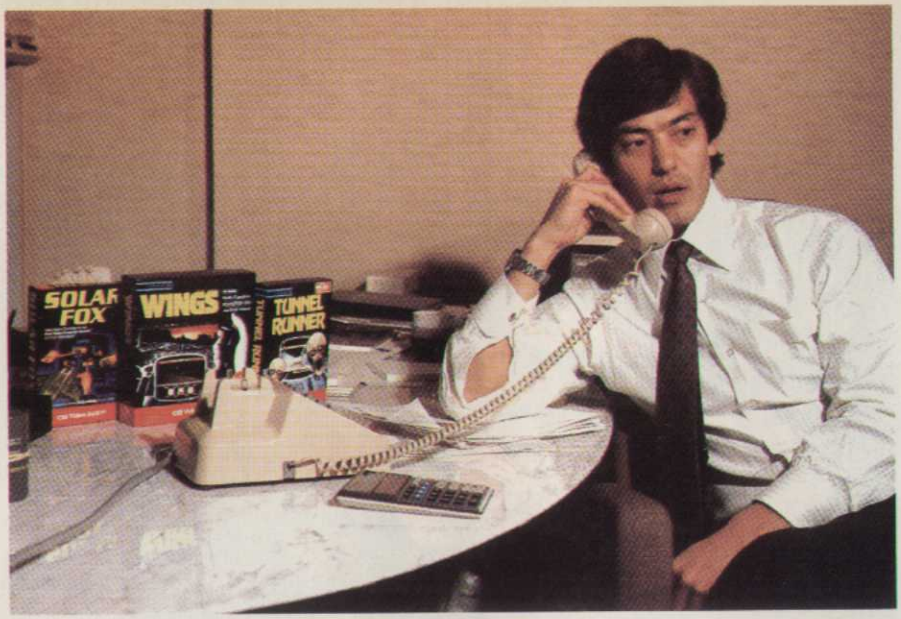
VIDEO GAMES: Why did CBS decide to enter the video game business and how did you position yourself, at the outset, in the marketplace?

ROBERT HUNTER: Since we are a successful entertainment company in many different areas, I can't see how we can afford *not* to be involved if we want to sustain our leadership in the business. The first thing I went after was a partnership with a creditable video game company which had a strong track record in the arcades. The two biggest companies, then and now, were Bally/Midway and Atari. While we did make a phone call to Atari, they weren't terribly interested, so we pursued an association with Bally/Midway, which resulted in a long-term, all-encompassing agreement. We do the home versions of the games they develop for the arcades.

VG: Are you committed to the belief

Photos by Lionel Martinez





". . . I try to provide a management style that lets these guys do what they do best, which is think about games. . ."

that successful video games come from arcade hits?

RH: This is a pretty young industry so there haven't been that many hits yet. A pretty limited number of games, under 20 I'd say, have proven to be very popular. Of course, the arcade games dominate that list which, in part, may be due to the fact that a significant number of people have been exposed to a game in the arcades resulting in an advantage from a promotional point of view. But you can't say there's an absolute correlation between arcade success and being a hit in the home. Part of it has to do with the translation. However, just because a game was released in the arcades doesn't mean most people will automatically know about it. Sure, it makes the game a little easier to market, but there have been far more games that have come from the arcades to the home market that haven't been successful. Take the case of Frogger, which wasn't a terribly successful coin-op game, but turned out to be a huge hit for the home market. On the other hand, Reactor is a coin-op based game that hasn't really taken off.

VG: Is CBS' game development philosophy closer to the Imagic model of teamwork or the Activision ideal of the individual creator?

RH: We're probably in the center since we very much believe in the teamwork approach to creating video games. The entire structure of our own internal

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development staff is geared toward encouraging people to help and work with each other. Programming is a very individual kind of effort, especially when you're doing it for a machine as limited as the Atari 2600, since you can't easily divide the work. To split that effort up among three or four people doesn't make a great deal of sense. The game concept, which is subjected to criticism and evaluation, evolves like a book or a piece of music. Folks who have the creativity, self-confidence and independence of artists work pretty much on their own. Still, the last thing I want to see is somebody who has a good idea for a game that really fits another game someone else is working on, hold it back because he wants to keep the concept for himself. That's counterproductive.

My real job is to provide an environment which supports group activity as well as individual creativity. We try to provide a place where people don't feel constrained to try new things. We're not afraid to try out game concepts even if they don't work out: There is no such thing as development without risk. I try to provide a management style that lets these guys do what they do best, which is think about the games they're working on and execute them in the best way possible. I have a responsibility for running this business, but I can also enjoy the process—arguing and discussing game constructs, concepts and play parameters.

VG: As a game player yourself, do you rely on your own judgement as to the quality of a particular video game?

RH: We rely more on feedback from actual game players than we do from any one of us. It's important because sometimes you get so close to what you're doing that you can't be objective. So, we do involve a tremendous number of people on the outside. And that has as much to do with our decisions as to what we are, or are not, going to take to the market as anything else.

VG: Considering the glut of titles now on the shelves, what kind of release schedule will CBS have?

RH: In a very short time, this business has gone through manifold changes. There was a period of time, about a year ago, when a bunch of people thought all of these games would sell—you just had to get them out there. I guess a number of companies have recently discovered that this is not the case. If I can go back to my experience in the record field—I never saw a record, in my three and a half years at CBS, that didn't have somebody (and usually a fair number of folks) who were, prior to its release, convinced that they had not only a quality piece of music but a commercial success. Of course, sometimes they were wrong. And that's going to happen in this business just as it does in any other taste-based enterprise. It's an industry that runs on hits and those hits are based partly on the product itself, whether it's entertaining or not, and partly on a little bit of luck along with the proper presentation of that game's appeal in the marketplace.

VG: Do you see other similarities in the way video game cartridges are sold compared to books and records?

RH: The video game industry is probably more analogous to the book business than it is to the record business. The record business has personalities: rock 'n' roll concerts offer the ability to perform in front of an audience and create an image. That has a tremendous impact on the record business. From a marketing standpoint, another crucial difference is the absence of radio. Arcades never did substitute for radio. Radio is a very powerful promotional medium for the record business because it offers free exposure for the labels' product—music—to its audience. The listener can sample it before he makes a decision to buy. But the biggest difference between our product and music is that music is a passive entertainment. Very rarely do you just sit and listen to a record—it's an adjunct to something else you're doing.

By their nature, video games are interactive and dynamic. They involve the participant in a much different way which influences how the product might be sold. We're committed to the idea of giving people an opportunity to try the game before buying it, even if very few retailers have been terribly cooperative with us. When a consumer is deciding whether to buy a game or not, I'd just as soon he have the opportunity, as you do with a record or a book, to sample the product.

VG: Why haven't you taken the opportunity to explore the vast licensing potential within CBS, such as television programs, rock groups, etc.?

RH: My attitude about licensing runs a

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VG

little counter to the current trend. I believe a license is not worth pursuing unless it's attached to a product or to a game that is in itself entertaining. We have a number of examples of games with powerful licenses attached to them that weren't terribly good games. The license may have accomplished the objective by convincing people to buy it, but a fair number of individuals turned out to be disappointed with what they got. On the other hand, there have been games with no licenses behind them, arcade or otherwise, that turned out to be very, very successful efforts. The ones that instantly come to mind are Demon Attack, Pitfall and Kaboom. I don't have any interest in simply hanging a license on a product hoping that that alone will make it sell.

VG: Was that your feeling about the Journey video game Data Age released?

RH: I did not see a game there. If I were to pick a rock 'n' roll band to use for its name to help attract the video game buying audience, Journey would certainly be high on my list. They are one of the best groups of promoters in the business; Herbie Herbert, their manager, is a very smart guy. It just didn't have a game idea that I thought was saleable for them.

VG: What advantages does the CBS corporate structure offer you as a video games company?

RH: An awful lot. But the most important is that CBS is a company used to taking risks in the entertainment area. Video games are a product of intangible value. They either do it or they don't. You can't feel them, touch them, smell them or quantify them. The same is true of records, books, what we put on the air or even musical instruments. What makes a Steinway different from some other piano, for instance? It's an intangible. The corporate management here encourages taking risks based on our assessment of the value of that intangible.

VG: How will CBS Software evolve out of CBS Video Games?

RH: I have always believed that the video game machine hardware had a dated lifetime. My guess was that sometime in the middle of 1984, the video game console would cease to become a growing part of the market and would, in fact, be overtaken by the home computer business. That seems to be what's happening. I do think, though, there will always be a place for specialized video game machines of a fairly high order. It's only a matter of time before the video game and the computer entertainment business is all part of the same software trade. Games will continue to be a large, but, nonetheless, just a part of the computer software business. Still, the infrastructure that would make home computers truly useful doesn't exist right now. Take home banking and checkbook balancing programs. I don't need a checkbook balancing program. I don't write checks sitting next to my home computer. Most of the time I write a check, I'm out somewhere else. What I could use, and I'm sure many other people could too, is a reduction in the amount of bills we get through the mail. And, I'd just as soon not have to send them something in the mail either, while the banks sit in the middle with all the paperwork. They don't want to process the bills and I do expect to see the banks actively working on becoming electronic clearing houses. Which means, all of a sudden, I'd just as soon be able to balance my checkbook

". . . you can't say there's an absolute correlation between arcade success and being a hit in the home. . . "

". . . video games are a product of intangible value. They either do it or they don't. . . "

". . . the game concept, which is subjected to criticism and evaluation, evolves like a book or piece of music. . . "

on a home computer because it will save me time. It makes it easier and maybe I can actually get some positive benefit out of it. The future's all in this kind of facilitating of communications. Those things are happening, but not quite yet. When it does, entertainment will not be the only reason to have a home computer.

VG: How many more video games can we possibly create?

RH: I would hate to think that the creative resources of the computer-capable population of the world had been exhausted in two years, and that there are no more options than maze games along with vertical and horizontal shooting variations. My guess is that we're going to have to come up with some new forms to sustain interest. There are a number of very creative games for the higher-order computers that have never been seen by the mass market, but do things that I never would have thought possible. The limitations of the hardware have much to do with your options. Programming for the Atari 2600 is an art because the machine's so limited and the demands of the marketplace are so high. If you stick with the standard cartridge and the Atari 2600 as the central processing unit, you run up against absolute limitations very quickly from a designer-creative standpoint. There are things you simply cannot do. And that's where the Ram Plus comes in. We wanted a semi-conductor that was a little more powerful than the Atari itself. The Ram Plus triples that capacity so we can now produce substantially better graphics, audio and game play, without significantly impacting the price the consumer has to pay. We created a bigger, smarter, faster chip.

I believe the Ram Plus is the most important development in the video game business this year. It establishes the position that the Atari VCS can do much more than was originally thought possible, which is just as important as Activision demonstrating that the Atari programs for the 2600 could be improved upon in 1980. I have every reason to believe a number of other companies are going to support the Ram Plus development in their own way. I think it's going to force the rest of the industry to recognize that we've all got to do much better. And the consumer can only benefit. This is really an industry whose biggest problem is not that there are *too many* titles, but that there aren't enough *good* ones.

The first two games we've come up with—Wings and Tunnel Runner—absolutely could not have been done without the modifications made possible by the Ram Plus. I think this is one of the things that will keep people coming back for more games. And, if the games don't get better, people will stop buying them. It happened in the music business in the late '70s, when there wasn't a whole lot of excitement. Video games cannot afford to let that happen again. Technology changes too quickly as do people's demands. We can't afford to stay static as an industry and expect people to continue to be interested. I think the success of the ColecoVision and the Atari 5200 shows that there's a large number of individuals out there who do want more. And they weren't getting it from the Atari 2600. We're delighted to produce better games.

VG: What kind of video games do you see in the future?

RH: There's been an excessive emphasis on hand-eye coordination games which tend to appeal to a particular type of person. But that person is not everybody. I think we'll see the development of games for more thoughtful people, where logic or deductive reasoning are a more inherent part of game play. I think we're beginning to move past graphics that are purely computer generated. I fully expect the interactive videodisc to become a successful consumer product. Another thing I believe will have a lasting impact on games as an entertainment source is the development of computer communications allowing two people to play together, either with or against one another, by using the computer as the media. Most of the games that have involved two players couldn't combine logical thought and secrecy of intent because there'd be just one television screen. Soon we'll see dual screens, maybe even in separate locations, with a telephone or cable linkage. Or games that use two television monitors in the same household, but in physically different places, so that you can do what you want while another person can do what he wants. When it happens this will introduce a new dimension to the game. I really think we've just begun to tap the surface. ▲

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THAT CHAMPIONSHIP SEASON

Reaching the Top in Ottumwa, Iowa

By Sue Adamo

Video game world champ Ben Gold spent nine hours cramped in an airplane to get there from his home in Dallas. Tim Folland, who claims over a million points on Time Pilot, Zaxxon, Stargate, Defender and Robotron and calls himself "The Texas Millionaire," took the long route from Spring, Tex. via Greyhound bus. Six Bakersfield, Calif. residents, among them the high-scoring McAtee brothers, crammed themselves into a compact car for a grueling 2,000 mile journey, while Centipede master Darren Olson traveled from Canada and Eyes star Roogie Elliot left Lake Odessa, Mich. behind. It takes a special something to get such an array of the nation's high scorers to leave their home town arcades, where many of them play for free, and make a trek to an arcade where quarters add up. But Ottumwa is calling.

A town which received national recognition as the birthplace of *M*A*S*H*'s Radar O'Riley, Ottumwa, Ia. is again in the public eye, this time with the enviable distinction as "The Video Game Capital of the World." Responsible for the town gaining such prominence has been the action taking place at the Twin Galaxies arcade, located on Main Street, and its sister arcade in neighboring Kirksville, Mo. The people behind the scenes include founder Walter Day, Jr., his partner Jonathan Bloch, and a handful of individuals who tend the ice cream bar, make change and keep the Twin Galaxies' computerized International Scoreboard accurate and running.

Many of the game players in attendance the weekend of March 19 had been present before—in November 1982 when *Life Magazine* captured them with their favorite machines, and last January when Twin Galaxies hosted the first North American Video Game Olympics, the finals of which aired on TV's *That's Incredible*. But this time Ottumwa was calling to them to talk business.

"It's no fun to just have a dull job," says Walter Day Jr., who certainly doesn't.

Jim Riley, of Meeting Planners in Boston, Mass., had been talking with Day about staging a travelling show—The Electronic Circus (see Blips, June issue). Among the attractions would be a Superstars Stage Show, he explained, in which three of the top-ranked players on 10 as yet undecided games would travel across the country, vying to keep, or capture, the number one title from each other or any gamers who survive local competitions and want to challenge them. In a back room at the Twin, Riley is talking to players about the event.

"What we're doing is taking you, the superstars in the video games business, and turning you into professionals, so that you're now playing for cash," he says. "We have a show that will generally do about $1.5 to $2.5 million in gate receipts each weekend, and from this will come the prize money that you'll be playing for. On an average, the number one-ranked player, provided he continues to retain his number one ranking, will earn about $3,000 a week. The second-ranked player will make about $2,000 and the third-ranked player will average about $1,000. If you stay with the show for the entire 40 weeks of its initial run, you're talking about an annual income for the number one-ranked player of about $120,000. And, if you add to that the endorsement monies which may result from manufacturers trying to promote their product, as well as other fees, it's not difficult to imagine the potential of earning a rather substantial income.

"This doesn't mean," Riley continues, "that every week you are competing or have to reach your scores. You only have to do that when you're challenged by somebody. If this happens, they can then issue a challenge and try to knock you out of one of those three top places. If they succeed, then you're out of the show and the other player gets the opportunity to replace you."

According to Riley the show will tour 200 cities beginning in Boston, June 3rd through 5th. Four shows will be staged

Beneath the backdrop of the scoreboard's display, designed by Bill Groetzinger, Iowa governor Terry Brandstad presents Ottumwa mayor Jerry Parker with an award while Walter Day Jr. holds an award delivered by Atari's Don Osborne and Margaret Lasecke. Terry Moss and AGMA president Glen Braswell stand behind the governor, looking on.

Photos by Susan Adamo

TWIN GALAXIES

simultaneously in four different cities during the tour's initial run. In addition to the Superstars Pro Tour, the circus will feature Kid's Corner, a Disney World-type section featuring a Captain Kidd show and amusement rides; musical entertainment found in a section called Live at the Electronic Circus will feature the music of a "high-tech" band called Video Experience and the country-rock of Nashville's Cruse Family. The Electronic Midway area, meanwhile, will consist of 500 video arcade games, which the tour will purchase from manufacturers. Riley is working on plans to enroll school-age participants in the Ottumwa school system, which will provide a tutor for every 10 players in the group. For those who want to work on college credit while touring, Riley is working with the University of Nebraska on developing a correspondence program.

"Now," Riley says, "the arcade industry doesn't have the greatest of reputations. Hopefully, this show is going to change that and create a total family entertainment image. This is what we want to accomplish. So, when I say that our video game superstars are going to have to be a squeaky clean *Brady Bunch* I mean it. This is a business and you're going to have people watching you. You may not be as famous as people such as John McEnroe, because it may take us five years to get video gaming as popular as tennis. But we're going to work towards that."

* * *

In the front section of the arcade, where players can buy Big Johnny and Uncle Walter's All-American Brand Ice Cream, sodas or rest their school books while they select one of the 20-plus games in the arcade, Day is providing a guest with a double scoop, answering a portion of the 50-70 phone calls the Twin receives each day and greeting everyone as they come in off the street. In between the activity, he is supervising plans for the following Saturday when Iowa Governor Terry Branstad will present Ottumwa Mayor Jerry Parker with an award of recognition for meritorious service to the state. Joining them will be Atari's Don Osborne and Margaret Lasecke, along with American Games Manufacturers Association (AGMA) president Glen Braswell and *Replay* magazine publisher Ed Adlum, who will give awards to Parker and Twin Galaxies, proclaiming Ottumwa "The Video Game Capital of the World." The event, which will take place in front of the scoreboard, will be capped with a Ms. Pac-Man competition between the governor and mayor (the mayor will win by a margin of some 2,000 points) and a parade.

"I decided I would start a video game arcade," Day begins, "because I read

Behind the Scenes at the Twin

Back in January of 1982, a game player walked into the Twin Galaxies and racked up enough points on Defender to make everyone there wonder if it was a record score. Nobody knew. Though Walter Day had been keeping track of high scores in Iowa, Missouri and Illinois at the time, it wasn't enough and the thinking began as to how to rectify the situation. The following month, Day began working on a national clearing house of high scores by alerting industry publications and game manufacturers of his plan. "I didn't tell them we might do it, or that we wanted to know if they wanted us to do it. I just said we're going to do this and we want to know if you're interested and they were. In a half hour I called all of them and a half hour after I hung up the phone we received our first long distance phone call, from Goodletsville, Tennessee."

At the time of the scoreboard's inception, Day did all the paperwork for the high scores himself and then sent the data to a computer house for a printout. Today, two Radio Shack color computers and a Radio Shack Model III, all equipped with disk drives, click on in the morning and are kept busy the rest of the day absorbing updates and program changes as well as information on the top scores for each pinball and video game.

Above: Lyle Holman inputs Roogie Elliot's high score on Rock-Ola's Eyes while Mark Hoff, left, works on a welcome for Iowa governor Terry Brandstad.

The gang's all here! Front row (r-l): Twin computerist Lyle Holman, Popeye champ Steve Harris, Mike (Colony 7) Puskarich, world champ Ben Gold, Texas millionaire Tim Folland, Doug McAtee. Second row (r-l): Pete Corpeny, Steve Sanders, Bill Mitchell, Robin Bowman. Standing (r-l): Roogie (Eyes) Elliot, Michael Buck, Walter Day, Lee Whitney, Jud Boone, Spencer McAtee, John Saffel and an unidentified spectator.

all those articles in *Time* and *Newsweek* that told me that I was going to be a millionaire if I opened up a video game arcade." A year and a half later, Day pays himself about $25-$30 a week and his help whenever he can. "This isn't a money maker," he admits. "The scoreboard is also really a labor of love. I believe that it should make us lots of money someday, simply because we deserve it and because it's a good idea, too."

After convincing his optometrist landlord that "this was going to be a clean, all-American place," Day and Bloch began working towards an arcade that would be fun and educational. The fun would come with the installment of the games; the educational part with the display of old newspapers and high school yearbooks, since Day is an avid collector of both. "Somewhere in the huge structure of the video game world, there was

At the helm of the scoreboard is Bob Bradfield and his assistants, 15-year-old Lyle Holman, who handles data and graphics, and 14-year-old Mark Hoff, whose specialty is graphics for special events. "It's a three-way operation going on here," Bradfield says, "with the important cogs being the two boys. Right now, we're almost a totally independent operation from Twin Galaxies. None of us are receiving any kind of financial rewards or pay. The boys are doing it for their city, is what it boils down to, as well as for their own self pride and out of faith in Walter and his ability to promote this.

"How many people, after all, can conceive taking a town such as Ottumwa, with 27,000 people, self-declare it to be *the* video game capital of the world and take on the responsibility of maintaining all the scores and records of all the machines out there? And how many businessmen are going to do that without charging people money to get the information? I won't deny that eventually there are going to be jobs created out of this and, obviously, we're going to be part of it. But, we never really thought that it was going to be as big as it is. We knew it was going to be big, but now it's *gargantuan*."

The 8K program which keeps the scoreboard running was designed by Bradfield in conjunction with Hoff and Holman. A very special type of programming is required, says Bradfield, "because of the way the data has to be manipulated and used. It has to be designed so that we're not favoring any one manufacturer and that every arcade is getting a fair shake."

A high score makes it to the board after a player completes a form sent by the Twin which requires information about the player and his score and several verification signatures from arcade operators and other witnesses. According to Bradfield, the superstar gamers have lent a hand in making sure the high scores reported are, in fact, attainable. "If I hear that a score is questionable or that they know the person and he or she isn't able to achieve a score like that, we will then require that person to play the game in front of us, not necessarily to beat his own score, but to prove that they've got the ability to achieve that high of a score." Recalls Holman, "There was one person who called in and said he scored 11 million on Donkey Kong. He said he had lost his first three guys and got something like nine million on the last guy. He said he was on level 22 at the time. Walter told him to call Bill Mitchell and he told Bill all this information and Bill knew that it was wrong. Bill told him, 'You can't get past level 22 unless you get there on the first guy.' So, that was the end of him."

Bradfield is presently working on a software program which can cross reference game players, ages, cities, arcades, manufacturers, etc. and hold the top 25 scores on every game. But this is only the beginning of his grand plan. "My dream," he begins, "is to have a master brain computer system here at Twin Galaxies, with six small color computers handling all the small, incidental data. I want the big computer to have a telephone tie-in so that, no matter where I am around the country with my smaller system, I can tie directly into it and get or dump information from arcades around the country which will have inexpensive, small terminals. My dream is to have a special place in the Smithsonian that will store the archive records we have, because this is part of American culture. These boys are right in the realm of breaking the threshold of history. It may sound funny to some people—two teenage boys in a small town in Iowa are actually making history themselves. Someday it's going to hit them right between the eyes how important they are in the history of the video game industry." —*S.A.*

a need for a fascinating all-American, human interest story. The video game industry needed a mecca. It needed a place people could look to as being a mover or a pioneer and it had to be colorful as well as different. It had to be offbeat, beneficial, and also entertaining. It had to be all these things and even more," Day recalls. "It had to be in someplace called Ottumwa, with an unpronounceable Indian name and an unknown place that would cause people to run to the map."

So far, Day's plans appear to be working. Having played host to *Life Magazine,* organizing the first North American Video Game Olympics and, subsequently, selling the idea to network television, Day is preparing for the future. Soon he expects to be issuing a challenge to the country of Japan for an international tournament and he's also planning to convert some undeveloped space in a back room into a Video Game Hall of Fame. Here he would include artifacts donated by game manufacturers, a library of computer disks containing a history of high scorers since the inception of the scoreboard and more games. But presently, Day is making preparations for the Electronic Circus.

"Jim Riley called and told me all about himself and I did the same. We realized that what I do here at Twin Galaxies would be the perfect anchor for the show. So we've been marrying the complementary elements of the scoreboard with his concept of the video game circus," says Day. "I think it's a very reasonable proposition, this idea of 500 video games touring the country; along with a number of professional competitors. It's essentially a more extreme version of the North American Video Game Olympics which I was going to do here in June. But this will be more fun and, hopefully, also make money."

Soon Day is being tugged away to watch Bill Mitchell, the number one-ranked player on Donkey Kong, who has been playing Centipede for a few hours. "How close is he to getting the high score?" a bystander asks. "He's over a whole day away from it," Day whispers. "We're all very close friends," he says, leaving Mitchell to the task at hand, "and I'm very much like their informal talent agent. It's not something I get paid for, but I've helped them all a great deal. The Twin Galaxies phenomenon has benefitted all these kids. It got them into *Life,* on *That's Incredible!* and put them in many newspaper articles. And all of this brings a realization that there is a certain success and stardom for these people. In other words, I'm saying that when somebody gets 20,000 points on a game in City X, the fact that it's known that it's a high score brings the player a measure of attention and acceptance and celebrity status from the local media."

* * *

Ben Gold, winner of the *That's Incredible!* Olympics, has just left Satan's Hollow to pull up a chair across from Steve Sanders, author of *How to Win at Donkey Kong,* to mull over the news of the circus. "I'm really excited about it," says Sanders. "Two of my colleagues are a little bit skeptical because they're admittedly leery about the high figures being talked about here. I think it's got great potential. I

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Game players from near and far gather in the Twin's game room. In the mid-ground Steve Harris watches Tim Folland try his hand at Harris' forte, Popeye.

really do. And I think with the kind of management I see in Jim Riley, it will go far."

Gold is one of those who is a tad skeptical. "I know that I'll try it out for three months in the summertime, but, when school starts," he says, "I don't know. The next two years are going to be the most important as far as going to college. Also, I play video games for recreation. Now, when they become a job, what am I going to do for recreation? When I went to *That's Incredible!* I practiced eight hours a day for about three weeks straight. I went to the arcades, somedays, for 10 to 12 hours. And I didn't really enjoy it. Two of the games I played on the show, I normally play and enjoy. The other three I hated and, really, it's tough to play and not enjoy a game. It takes all the fun out of it. With the circus it's going to be 36 hours on a weekend—12 hours a day for three days. I could probably handle that every week, as long as it's something enjoyable. But when we start competing against each other, then we're going to start hating each other."

"Well," says Sanders, "think about the camaraderie we had on *That's Incredible!*"

"Oh, yeah," says Gold. "But that was only one thing. Can you imagine the pressure every week, or the strain? For *That's Incredible!* we weren't competing for money and it was like a one-shot deal. This is different. 'If I knock down Steve, I'm going to get an extra $1,000.' I told Walter that the circus will have priority. One thing I know for sure is that if I don't do it, I'm not going to be in the thick of things and I want to be in the middle of *everything*. If this is successful, great, I'll do it. I might be a skeptic on how good it will be, but that doesn't mean I'm not going to give it a shot."

The primary issue of the day now settled, Sanders and Gold begin talking about the tight circle of high-scoring friends they've met through the events at Twin Galaxies. For both of them these friendships have been costly in terms of telephone bills, with Gold's shooting up from $100 last December to $300 in February. The biggest part of that, he says, comes from calling Darren Olson in Canada.

"We have a system now where we call each other at about two o'clock in the morning on Saturday and Sundays and talk for about two hours. The first thing I'll usually ask anyone I call is, 'what have you been playing lately?' and they'll tell me what their scores are and, if I've been playing the same game, I'll then tell them about the way I play it. I taught Steve here how to play Q*Bert over the phone."

"And in a week," says Sanders, "I mastered it!"

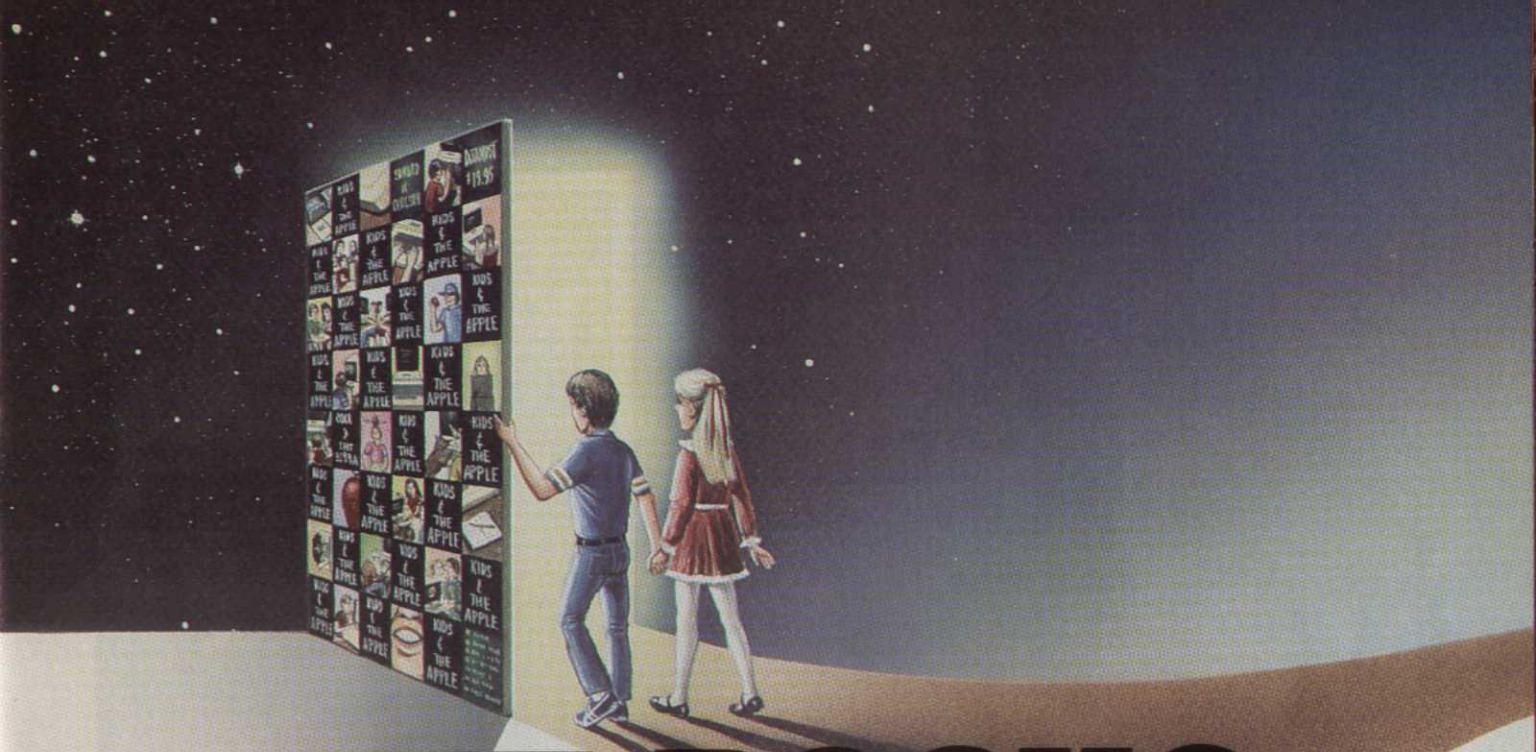
"We drew diagrams over the phone and we labeled each thing and I said, 'You go from here to here to here...' It's real easy."

"Ben can do it, I can do it, Todd Walker can do it. All it is," says Sanders, "is babysitting the machine for a few hours, or a few days."

"My mother always tells me, 'When you go to Ottumwa don't share your secrets. All your friends will get better than you if you tell them because they're all so good already,' " says Gold. "I say to myself, 'Well, I can't show my patterns to Mike Lepkosky because I *know* he'll beat me if I do.' First thing, when I see him, 'Hey, Mike! My patterns. Come look at them!' I just break down."

* * *

In the game room, Day is directing the installation of lights around the scoreboard while computerists Mark Hoff and Lyle Holman are, respectively, keying in a greeting to the governor as well as logging a new high score on Eyes. "Everything starts happening by 9:20, for sure," Day shouts over the din, "because that's when the Governor walks in the door. We're not sure about the President yet. We don't have any word on that. Now, the parade starts over in the southside, comes across the bridge and then downtown. After that, it's discussions, interviews, photographs and meetings all day." Stepping back, Day remembers his earliest intentions with the Twin. "It was going to be a clean, all-American place, running on promotional ideas to make it very well known, maybe even on a national scale. I didn't know what I was going to do, only that whatever it was, it had to make a big splash and be fun. Because it's no fun to just have a dull job," he shrugs. "Do you know what I mean?" ▲



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Coin-Op '83

Arcade Games Show Off

The AOE has tended to anchor the business more firmly to showcasing spring and summer games as well as indicating trends for the fall and winter.

By Roger C. Sharpe

Photos by Steven Epstein, Barry Schuler, Roger C. Sharpe

After having been involved in the coin-op industry as a writer, game reviewer, consultant and designer for the past nine years, I still have a sense of wonder whenever I attend a convention or trade show. It's not just the enjoyment of being able to play the newest models before they hit the arcades or even the fact that I get the chance to see old friends. Instead now, with the passage of time, I can put any given product developments or trends in a perspective based, in part, on the continual evolution of coin-op game design as well as the historical and cyclical nature of the business.

With a regular schedule of conventions in the Orient and Europe as well as many state shows throughout the year, the industry still revolves around the models introduced at the annual fall AMOA (Amusement & Music Operators Association) extravaganza and the recently-created AOE (Amusement Operators Expo). Staged in the spring and having just celebrated its fourth anniversary, the AOE has tended to anchor the business more firmly to showcasing spring and summer games, as well as indicating trends for the fall and winter.

However, the AOE isn't just an opportunity to walk down aisles and preview as well as play the newest games, often, before the real world has ever seen them. This year there were also more than four dozen seminars covering a wide variety of topics. Some provided forums for discussing industry problems, and possible solutions. In addition, manufacturers, distributors and operators were able to meet for three days and gain insights regarding product development as well as players' attitudes and desires for potentially new types of games.

On March 25th to the 27th, in the O'Hare Expo Center just outside downtown Chicago, it all came together for coin-op with a diverse array of games which should make the rest of 1983 a very interesting year in terms of design direction and the further

Illustration by Susan Shay

expansion of available technology for arcade play adaptation. There were what we now might want to consider more conventional video games featuring a variety of themes and graphic treatments, but also a greater number of novelty-type machines and last, but not least, the introduction of the first animated videodisc game which is scheduled to hit the street this summer.

The AOE took place at a time when the industry, in general, has been beset by a number of problems. With decreased revenues, reduced production runs and most assuredly some effect from the proliferation of home systems and carts, the mood was one of a 'look-see' attitude. Put into perspective, the arcade business has been riding the crest of an upsurge in game popularity. This dates back to the last couple of years when demand was at its highest point, in terms of equipment, and new locations opened almost everywhere to accommodate the rash of new players.

However, any trend can last for only so long and, at this stage of the game, the industry is finally beginning to feel the after-shock. Incredibly, many felt that the boom times could go on almost indefinitely, not realizing, or willing to accept the notion, that all good things must come to an end, including an accelerated growth rate which propelled the business into the spotlight.

And so it was that the AOE provided some clues as to how things will evolve in the coming months. If anything, the event tended to confirm that coin-op is in a transition period. Players are now returning back to the old-time favorites which have endured for far longer than has been the case in recent history. The major development has been the fact that most game rooms and arcades literally don't have the space to put in a new piece no matter how good it might appear to be. The result is that players are getting less and less in the way of choice due to production

schedules which have lessened in overall amounts, as well as in the number of models built in any given season.

Far from a no win situation, the result will be, by necessity, a solidifying of day-to-day business where we'll find a fading away of companies not able to compete on a viable level. There may eventually even be the combination of some in order to firm up market position, resulting in a situation that has marked the industry throughout the major portion of its history—a few solid manufacturers carrying the business along. In fact, we're seeing this now, during what can be considered a 'shake-out' period. Interestingly, each succeeding convention seems to find one, two, or more exhibitors absent from the proceedings and removed from the total picture.

What does all of this mean for you, the player? Well, it hopefully puts events and developments into perspective so that you'll better understand why you're seeing what you're seeing at your local game room. There are, admittedly, less models being released, compared to the last few years, and an increasing emphasis on exploring new coin-op variations which broaden the basic video game configuration we've come to know. In fact, novelty attractions garnered more than their fair share of attention at the AOE with gun games, pinball machines and other creations attempting to find a receptive audience. So it was

Walking down the aisles of the AOE, it was easy to almost forget that the coin-op industry is experiencing a slump which affects players in terms of game selection at any given arcade while also having an impact on the continued emphasis of innovative design directions.

that a diversity of equipment appeared on the show floor, with a few solid performers standing out from the crowd.

The big news, was the introduction of Cinematronics' Dragon's Lair, a videodisc game. Based on the same technology as Sega's Astron Belt, which was not in attendance, Dragon's Lair brought cartoon animation to life in a conventional upright video cabinet and represents what many believe may well be the future direction of coin-op games. Listening to a large number of industry members at the show, it was less than suprising that a segment of individuals didn't want to believe that this achievement could possibly be on the streets this summer (Cinematronics' planned schedule). There were questions about aspects of the play and continuity of images on screen, but many of these observations weren't really issues given that the models on display still have some 'tweaking' to go through before they're ready for the general public.

What is important, I feel, to understand about this game development, is that it does represent some portion of the future. The technology is being studied and applied in numerous different guises which will make this kind of entertainment a staple in the arcade as well as the home. There's no question about this, only what the time frame will be and how far the variations will go to appeal to a broad-based audience. As for those detractors who would choose to think that players won't respond to this type of entertainment because it's not as exacting or 'real' as the video we've been used to; the feeling here is that it can compare favorably on its own merits. Just playing the opening scene of Dragon's Lair, which had the leading character, Dirk, swinging from one burning rope to another before gaining entry to the next scene, is somehow more engrossing to me than the similar action on Jungle Hunt or even the home cart Pitfall. However, time and players' responsiveness will tell when, and if, this type of entertainment will ever be the norm, or exception to the rule, for coin-op video games.

Also in attendance at the show was a renewed interest in conversions for existing models. To show just how far this idea has spread, the Gottlieb booth opened up many eyes with daily demonstrations proving the simplicity of converting over pinball machines via the plugging in of a complete playfield, game and sound proms, new backglass and other printed information. In addition, this manufacturer offered some remakes that have been subtly refined for the present with Royal Flush Deluxe and Super Orbit making comeback tries. Bally/Midway brought back Baby Pac-Man which has given new life to the concept of pin/vid hybrids as well

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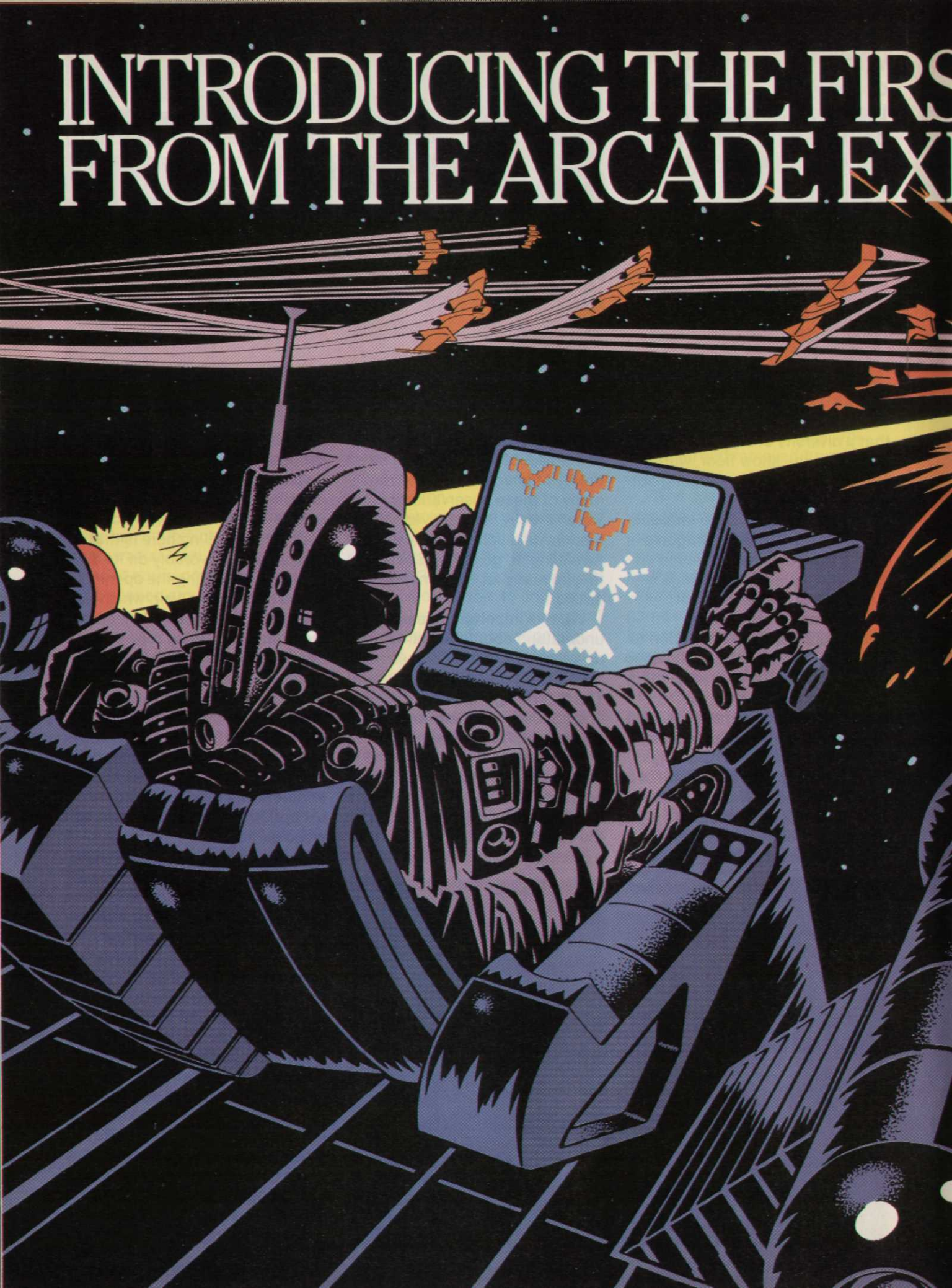

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as the two-player, baseball-inspired Grand Slam that's a pretty good playing effort. Meanwhile, Williams had its Defender pinball all geared up along with Time Fantasy, which is a straightforward, no-frills design with plenty of action. But it was their two-player, head-to-head Joust which grabbed a fair share of attention since the concept hasn't really been tried for a number of years and might be novel enough to gain a following with today's players.

Last, but not least, was the reappearance on these shores of Zaccaria with two extremely loaded machines featuring imaginative playfield design that made "pinball's last angry man" almost forget just how far pinball has slipped. Standing before the likes of Pinball Champ and Soccer Kings, it was easy to imagine the golden days when anything and the kitchen sink could be found on a multitude of pinball machines.

As for the main attractions on display, Centuri brought an incredible soundtrack and some fast-paced action with its newest game, Gyruss, and rounded out the exhibit with Munch Mobile and Guzzler, as well as a few Time Pilots, which has propelled this Florida-based company into the limelight. Across the aisle at Bally/Midway were a number of pieces including a new climbing-type game called Mappy, as well as the introduction of a new video character, Krooz'r, starring in two games.

Of more interest was the preview of Journey, the reverse licensed effort via Data Age, which in no way looks at all like the home cart. In fact, it features some visual effects that brought the members of this rock group to life, at least their faces, with almost photographic realism in a game that offers five different screens and challenges. Also in attendance, unveiled at an evening party and then placed on the show floor the second day, was Bally/ Midway's Professor Pac-Man. Yes, the lovable character is back, only this time there's no maze to contend with, but rather a question and answer format that makes this more of a novelty attraction instead of a hard-core gamer's delight.

It wasn't all just fun and games as industry members had the opportunity to attend over four dozen workshops and seminars which covered everything from technical tips and the maintenance of equipment, to arcade design and promotion and the current dilemma of dealing with used games.

At Sega, where the news last October was the display of Astron Belt, there wasn't any more to be said for this videodisc effort, but the company wasn't lacking for product. Congo Bongo brought back gorillas in a Zaxxon-type screen scroll, as well as Star Trek in its upright and sit down cabinetry, and Buck Rogers still flying through his Planet of Zoom.

Gottlieb showed just how far Q*Bert has come with a display case and literature regaling one and all of the remarkable number of licensing agreements that will bring this video favorite everywhere in a variety of forms. In addition, the company was also getting some good reaction from its newest video adventure, Mad Planets.

At Stern, one found a return to the days of the gun game with Mazer Blazer, an updated video-incorporated shooting game that tended to overshadow Bagman and Pop Flamer, a novel video game conversion. Konami, which like many other companies has been known more for its licensed efforts under different corporate names, the action was around an interesting climbing game called Roc 'N Rope and Juno First, which seemed to be a vertical Defender with plenty of firepower.

Williams brought back an improved version of Sinistar which was previewed at the AMOA but has truly come a long way in the intervening months. Included was a sit-down cockpit with stereo sound and a newly-styled joystick, that almost took away from the appearance of an interesting and enjoyable effort, Bubbles that, in fact, features the kitchen sink along with a host of items we've all come to know and love.

Atari, riding the crest of a successful run on Pole Position, brought back this favorite as well as Xevious, another game licensed from Namco and its newest, Food Fight, which provides some interesting graphics and play action. Taito had Zookeeper on view, along with Frontline and from one side of the exhibit floor to the other, there were more than enough attractions to keep interest up regarding where coin-op is heading in the coming months.

All in all, it was a three day adventure that offered surprises, disappointments, but a great deal of satisfaction knowing that the industry is ready to take players to even newer and more challenging worlds of coin-op excitement that is pushing product development and technology advancements to their next level. And that's got to be good news for one and all. ▲

Bally MIDWAY
centuri

TAITO AMERICA

Gottlieb
Amusement
Games

STERN
SEEBURG
DEMONSTRATION
MODE

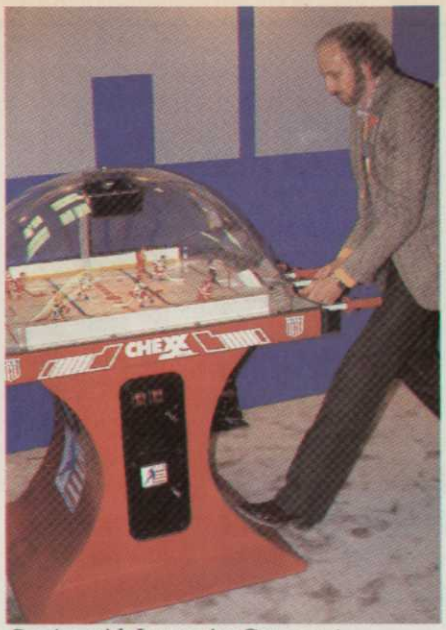
Nintendo

Robots in a variety of forms and guises from Sally Animation and ABC Warehouse Happy Signs.

The arcade attraction Space Rangers goes full speed ahead.

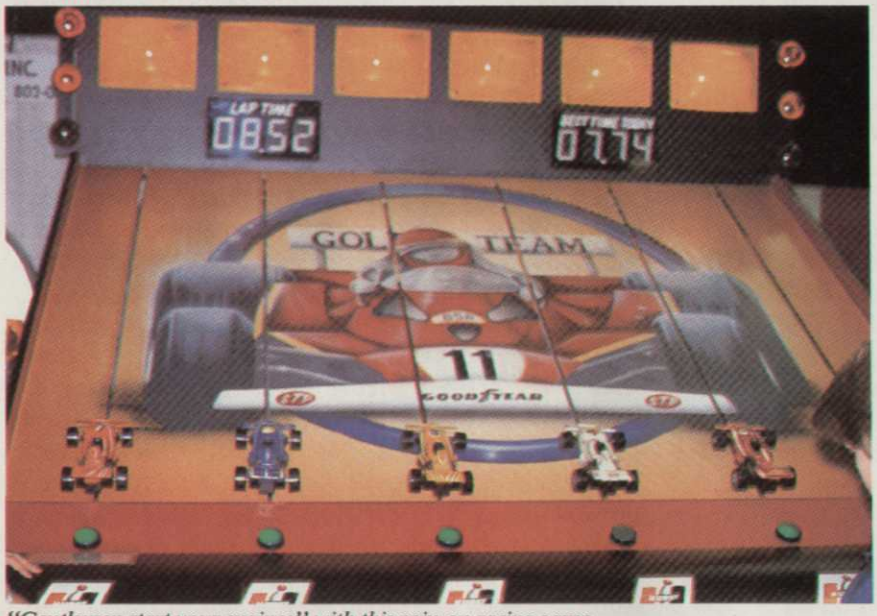
Stumped by Bally/Midway's Professor Pac-Man.

Games come down to size with Intrepid Marketing's Moppet Video.



Scoring with Innovative Concepts in Entertainment's hot new Chexx.

A dollars and sense idea: The Money Machine.



"Gentlemen start your engines" with this coin-op racing game.

Bally provides some overhead visuals for the on-screen excitement of Journey.

Vending International clowns around with a novelty balloon machine.

Players get into the action featured at the Centuri booth of 'new games.'

The Rites of Spring

Every Spring the swallows return to Capistrano, Monarch butterflies migrate up the West Coast, birds fly back North after wintering in South America, a young man's thoughts turn to. . . well, you get the general idea. There's also another migration which occurs when a group of coin-op manufacturers, game distributors, arcade owners, service firms, and even some reporters converge on Chicago for the Amusement Operators Expo (AOE). This year *VIDEO GAMES* was there to see it.

After having found the well-hidden press booth, I was ready for the show. Or so I thought. Once inside, I was immediately bombarded by a 90+ decibel cacophony of sounds. It seemed as if the game manufacturers felt that the only way to sell *their* machine was to be louder than the competition. The basic theme was simple. Those who came to exhibit, came to sell the idea that their game or product was a winner. Every aisle was jammed full, with everything from skee-ball and pinball machines, to an electronic stripper, numerous token manufacturers, arcade insurance companies, and even a blood alcohol tester.

As I strolled through tomorrow's hit games, also-rans, and never-had-a-chances, it was interesting to see how little progress most of the amusement industry has made in the last six months. True, there were a couple of unique presentations such as Dragon's Lair, a video disc game from Cinematronics, Williams' rather unique Bubbles, in which you're a bubble cleaning a big sink and Bally's Wacko, which is a fast-action, humorous, thoroughly twisted game, but much of what was available wasn't that different from models which have already been out for months.

All in all the general mood seemed to reflect the current uncertainty that is plaguing the industry. Apart from the same standout games which have proven their worth and enduring popularity, the boom of a few years ago has been replaced by more caution and careful selection in order to minimize the risk of getting stuck with games that won't return a profit. The arcade operators will be given a few choices over the next six months and will probably rely on a slightly different rehashing of last year's hits rather than take a gamble on some of the newer games. The other alternative appears to be a growing acceptance of conversions which may become an even greater factor in the near future.

The idea behind conversions is simple. The arcade operator has a machine which has stopped earning him money. He takes this machine, buys a basic kit (or sends it out for conversion), and ends up with a new game in his old (redecorated) cabinet. Since much of the hardware in the old game is reused in the conversion, the cost of converting is ⅓ to ½ the cost of a totally new game. One conversion method that's available is *extremely* simple. To change over a game, you merely insert a new game tape and replace the artwork on the outside of the machine. In a depressed market, this approach may well become more prevalent than it has been in the past. At the AOE alone, Universal was selling Mr. Do conversion kits, Sega had

Tac Scan and other games available for conversion, Midway, although stating that it won't get into conversions, had a Super Pac-Man enhancement package on the market. The question "Why replace a bad old game with a bad new game?" will continue to be answered with "You don't have to. . . we've got a good game available" over the next few years.

Other highlights of the show included the Atari booth where Food Fight was on display. In this game you have to maneuver Charlie Chuck (any relation to Chuck E. Cheese?) around a screen while picking up pizzas, hamburgers and what-have-you, avoiding the chefs who are chasing you, and throwing food at them when you have a chance in an effort to reach an ice cream cone before it melts. The graphics are good, but not outstanding. Game play is adequate, but what really distinguishes this effort from most of the others is an "instant replay" feature, which plays back particularly good rounds in slow motion. Atari also showed off Xevious and Pole Position to round out their selections. But of equal interest here was the inclusion of two interesting product developments: a software package (for use with an Atari 800 computer, naturally) which allows the arcade operator to keep track of his operation (profit/loss, earnings per machine, etc). And, secondly, a new line of collector pins which, presumably, game playing fanatics will purchase and wear on their clothes, or collect and trade (see Blips).

Sega's exhibit featured Congo Bongo, which is sort of a mixture between Donkey Kong and Zaxxon, if you can imagine such a thing. In this game, you have to maneuver your player up ledges, across streams, and around obstacles, all the while avoiding coconuts rolling at you, and shaking off monkeys which keep climbing on your back. Also on view was Super Zaxxon, Buck Rogers and The Planet of Zoom, Star Trek and conversion kits.

Williams made a very strong showing. Its Sinistar game, which was getting a lot of play, requires fast reflexes as you try to destroy the asteroids which are being put together to form an all-powerful entity. Once the Sinistar is completed, an ominous voice threatens you. The game claims to use stereo sound, with headphones (not available at presstime), and could be an exceptional performer. A nice change of pace from the company was the introduction of Bubbles, a game in which you steer your bubble around a sink, picking up dirt and avoiding

roaches, razor blades, and other things which aren't nice to bubbles. When you complete a screen, the sink drains, then refills, with more gunk. It's a nice diversion, but might be a housekeeper's nightmare. And the mind boggles at any follow-ups, if this machine catches on.

Cinematronics previewed its videodisc adventure, Dragon's Lair. Although the screen blinked during game play, it was nice to see truly photographic resolution in a video game. This should be the wave of the future, with Cinematronics apparently ready to offer the first commercial models, although the cost may be prohibitive for most arcade operators.

Bally/Midway was promoting its 25th anniversary with black megaphones, black mini-frisbees, and black first-aid kits. It was also showing a few new games, among which Wacko seemed to be a strong, rather off-beat presentation. In addition, one found Professor Pac-Man, a well-conceived, well-executed intelligence test, which will probably not do well at all. The idea behind ProfPac (as its designers call it) is to answer a series of more than 500 multiple choice (multiple guess?) questions. Four wrong answers and you've lost your quarter. An exciting concept involved in this game is that, without changing the game play, new questions can be loaded into it, prolonging its life. Unfortunately, IQ type games have never been well received (do you want your friends to see how dumb you are?), and this one probably won't break the trend. Although a weak prospect for the arcades, it does seem like an *ideal* product for licensing to the home game market.

Nintendo carried its Donkey Kong series one step further with Mario Bros. (no relation to Dr. Joyce), a game which was consistently confusing to all those who tried it. What you have to do is help Mario's brothers knock off turtles as they escape sewer pipes. Nintendo has only introduced one game at a time in the past, and although cute and clever, don't expect Mario Bros. to be another Donkey Kong. Universal had Mr. Do, Gottlieb had Mad Planets, Stern had Lost Tomb and an impossible to see shooting game with a distorting fresnel lens "large screen." And there were a host of other games from other major manufacturers, and companies with unfamiliar names.

Sente Technologies, Nolan Bushnell's latest acquisition, was at the show with a Skee-ball-type game, offering such options as "a flashing beacon and custom plexiglas and paint." An unnamed source at Sente indicated that once Bushnell's non-competition agreement with Atari expires in October, we can expect to see some remarkable video arcade games. For obvious reasons, he would say nothing more.

While on the subject of Skee-ball, there were a number of incarnations of this game and its close cousin, bowling. Exidy's Whirly Bucket, a sort of miniaturized Skee-ball game, seems the strongest of those shown. It is space efficient, well-designed, and computer controlled, with a built-in bonus target and sounds which indicate your score (if your ball doesn't score any points, a turkey gobbles at you). The moving target and strong sound effects should make this game a contender.

For kids, there were the requisite number of sit-in space and driving games. Kiddy Rides, USA presented one of the most interesting concepts: a race car with a video screen, which combines movement of the car with an on-screen driving challenge. The concept is somewhat reminiscent of Coleco's installation of the Turbo expansion module in a race car, with a large-screen monitor. It should be a real kid pleaser.

Some other areas of interest and possible future trends included slotted game tokens, a few companies hawking arcade management software and computer systems to run it on, marketing firms with gimmicks to bring those quarters in (including a plexiglass booth filled with dollar bills in which you can stand and try to catch as many as possible in 10 seconds), lock manufacturers, lift gate and hydraulic lift manufacturers (those heavy machines don't walk by themselves, do they?) and shooting games. In terms of the latter, one offered a backwoods scene, where you've just run into some hillbillies making moonshine. You can shoot them, but be careful. . . they shoot back. If you miss, they may squirt you with their water hoses. Another, which shows great promise for amusement parks, uses a monster air compressor to shoot balls at a target. It looks good, sounds good, and should have a good shot to be around for some time to come.

Finally, there was an assortment of rather unusual items. A surprising number of companies were selling pulse meters, which do little besides tell you how fast your heart is beating (or at least, how fast your finger wiggles). Or how about an ancient reflex meter (push a button when a light comes on)? The weirdest attraction, however, had to be the Stripper. When you insert your coin, the cabinet, with a heart-shaped, mirrored cutout, lights up. When this happens, you see a manikin behind the now clear glass. The music from the Stripper comes on and a target at the top of the glass flashes on and off. If you hit the bullseye when the light is on, one piece of clothing is removed. You get four shots, and there are an equal number of items of clothing to be 'lost.' However, if you're looking for it to go all the way, it doesn't. The last step reveals a skimpy pair of panties on this obviously shameless manikin.

There were also a few good things to see if you happen to remember the good old days. Pinball machines are *not* dead, although they're a lot louder. Williams had a Defender pinball machine while Bally's Baby Pac-Man combines pinball with video all in one game. Still other manufacturers offered more electronically enhanced versions of this former coin-op star.

On Sunday, the last day of the show, the lights went off promptly at 4 P.M. and the room was enveloped by a strange silence. It seemed that the only sounds to be heard were the ringing of your own ears. Everyone was busily packing up their once gleaming, happily working machines. Many were trying to assess how well they had done over the previous three days. It will take some time to determine what will make it and what won't. But at least I had seen the future and some of it, as they say, works.

—Mark Brownstein

DRAGON'S LAIR

Enter the Dragon

It didn't take long for Cinematronics to make a comeback in the coin-op industry. After having enjoyed some successful years as the company behind Space Wars, the first vector graphic video game, Rip Off, Solar Quest and many more, Cinematronics fell upon hard times in the past year, only to have dramatically been resurrected this spring with the appearance of the first animated videodisc game in an upright cabinet.

As reported in industry trade publications and discussed on the exhibit floor in Chicago at AOE, the system behind Dragon's Lair is owned and copyrighted by Starcom, with a third owned by A.M.S., an engineering firm, Don Bluth Productions, best known for its animated feature film, *The Secret of Nimh,* and Cinematronics, which will manufacture and market the game.

Tom Campbell started out in the coin-op amusement business on the operator level and then progressed to local and regional distributorship before joining Stern-Seeburg as sales manager. While at Stern, Campbell advanced to director of marketing, a position he held until this past December when he joined the Cinematronics team as director of marketing and took a challenge to enter the dragon's den in El Cajon, California.

VIDEO GAMES: Although you weren't with Cinematronics at the inception of Dragon Lair, could you tell us how the concept came about?

TOM CAMPBELL: As I understand it, the total creative effort has been under way for about four years. The prototype you looked at is a culmination of about one year's joint effort from the designing and development team to the marketing, distribution and manufacturing group. In essence it's been a joint effort since the beginning.

VG: What are the plans for distribution?

TC: We're going to treat Dragon's Lair just like a conventional video game. We'll be selling it through our normal channels of distribution in the United States and Canada but, interestingly, we found at the AOE that there is going to be a huge demand for it from Europe. Certainly the domestic marketplace is going to be huge. Frankly, I don't think we're going to be able to build it fast enough to fill the demand initially anyway. At the AOE show I could have written thousands and thousands of orders, but it's just not feasible at this time because the target date for shipment is July.

VG: But do you think it's good timing from the standpoint of the AMOA show to actually come out well before the show?

TC: It's probably not good timing from that aspect and it's probably not good timing in that the summer is traditionally the slowest time of the year in our industry. However, with a product such as Dragon's Lair, you have to remove it from the norm. I don't think the sales are going to be diminished one bit because it's a July release or because it's prior to the AMOA. I think, if anything, the product itself is strong enough to sell through any release time.

VG: Do you have any idea what the production run will be? Or if it can approximate figures such as those reached by Pac-Man?

TC: Well, to be bigger than Pac-Man you'd have to sell over one hundred thousand machines. And I'm not really sure this is possible at the present time. I think, two years ago, you

could have safely stated, "We will build one hundred fifty thousand of these games," but you can't do that anymore. I don't think any manufacturer will do that today because the marketplace has become compressed. We're in a position of having a glut of product as far as the number of games being poured out. Also the economy has gone soft. On a good video game now, the manufacturers are probably seeing about 30 to 40 percent of what they would have built in a good market. It's just not possible for new product to be absorbed that quickly or in the quantity we've become used to. Even the best games today aren't selling in the numbers they should, while kits and conversions have also affected the sale of dedicated games.

VG: How much has the home game market affected the arcade game?

TC: There are people who will tell you it's affected business a great deal and, I may be wrong, but I don't think it has. If the home market has affected our business in any way, it has been a positive one, by exposing our product to many people who had previously not held our industry in a favorable light. I think it's taken our product into the living rooms of hundreds of thousands of homes and kept the awareness of video in general out there for the public.

VG: Getting back to Dragon's Lair and what the impact of the technology may mean for future game development, what is the system behind this interactive videodisc machine?

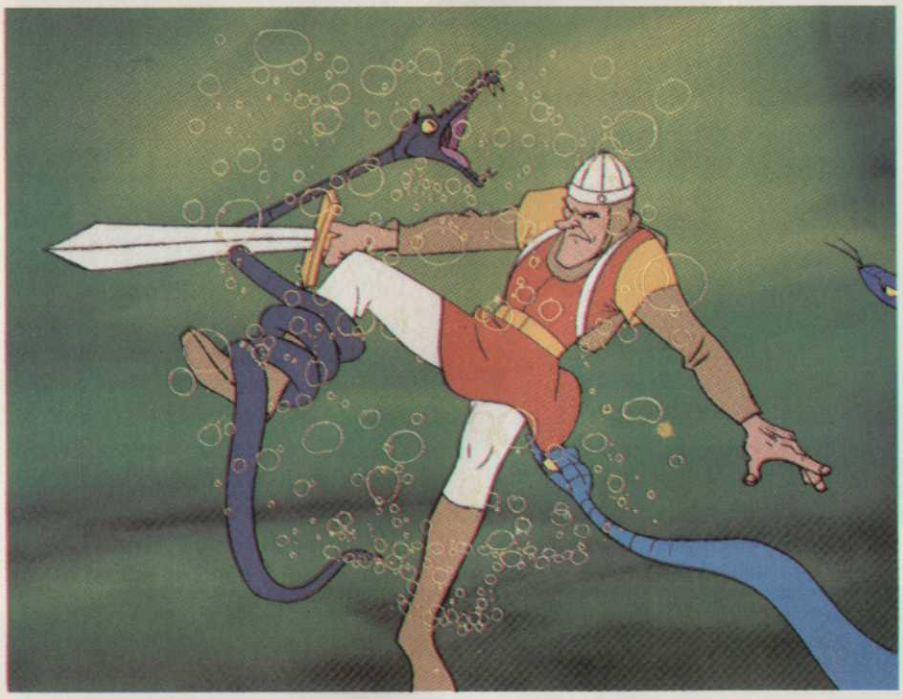
TC: It's a Pioneer laserdisc player which is really only the size of a standard VCR. The disc itself is about the size of a 33⅓ LP and rotates in much the same way, only this time it's read by a laser beam through a normal PC board and at that point the information is transmitted through the harness and into the monitor.

VG: Given the fact that the technology seems to be adaptable regarding program material, will Dragon's Lair herald in the advent of more discs which might then be inserted into the basic cabinet?

TC: Yes! Ultimately that's the plan, with interchangeability being the end goal. To change the game from

Dragon's Lair to, say, Son of Dragon's Lair, operators would only have to change the disc and make a ROM change on the board as well as change the outside cosmetics or graphics with overlays and some side decals. So, it will basically be a kit, which is why the game can be seen as such a breakthrough. There would be this generic cabinet with a selection of discs and accompanying graphics so that the game itself could always be updated accordingly.

Tom Campbell, director of marketing for Cinematronics.



VG: Dragon's Lair seems to be a new direction for game design and development, but how pervasive will this form be?

TC: I think, ultimately, you're going to see disc and disc players at home as well as arcades. You're even going to see animated games in the living room. I think we're destined to follow the normal evolutionary manner which conventional video games have taken so that now consumers have a choice of raster as well as vector graphic games for home use, depending upon the different game systems. We feel very strongly that the industry, as we know it today, has plateaued. Much has been dependent upon the technology, which has always been the answer in this business and almost any other. Advanced technology has always taken the industry from point A to point B and we think this is the next logical step to go. After all, something has to be done, since you don't continue to put fresh paint jobs on used cars.

VG: So you think that video animation and interactive disc games are the way to go?

TC: We don't think this is the end, since so much can be done. We think that, eventually, we may build games featuring computer-generated graphics combined along with a film. If you saw *Tron*, that's basically what you were seeing: computer-generated graphics and film married together. This may well be an additional direction we'll want to explore. But if you don't start some place nothing happens and something has to happen because there are so many super games which have been released in the last six to 12 months and have not sold through for the same reasons I gave you earlier. The marketplace is in a mild recession, dollar-wise; there's a glut of product, and conversion kits came along and killed off a great deal of sales in terms of dedicated games. It's going to continue and won't get any better until there's something dramatically different with play value and player appeal. Dragon's Lair seems to have all the ingredients. We'll just have to wait and see what happens. But so far the response has been phenomenal.

—Beau Eurell

COIN-OP SHOP

Show-Offs from the A.O.E.

By John Holmstrom

Except for the animated laserdisc model, Dragon's Lair from Cinematronics, the 1983 A.O.E. offered very little we all haven't seen before. Most of the new games were variations on recognizable and overused themes which aren't going to shake up many arcades. Even the vast improvements in game play that we've seen of the last few years seem to be drying up. Science fiction games remained a factor, although cartoony and 'cute' themes ruled the day. Almost every company had at least one game with a light-hearted or humorous touch. The result was that most of the space games appeared stronger than past versions simply because anyone bringing out one couldn't rely on the fad value to attract attention. As for the cartoon-inspired models, any novelty value is rapidly disappearing due to the release of numerous mediocre games.

This isn't to suggest that every game with an amusing theme was bad, nor that the science fiction games were universally great. However, both fads have seen better days. One of the most encouraging aspects of the show was that the designers are paying more attention to motivation — something in the game that plays on players' psychology to make them want to come back for more.

There are so many games available that you'll probably never see all of them, no matter where you live. A few years ago "How-to-Play-Video-Games" books could cover all of the popular models you'd find in your local arcade. Now, more and more arcades are offering games you might not find in another location. The reason is that there just isn't room for all the games in one arcade anymore, and few of the new releases showcased were must-have items for many operators. The result is that you're going to see less of a turnover in equipment at your local game room, and fewer new models added compared to how things used to be.

A development which shouldn't be ignored is the apparent trend by coin-op manufacturers to build more novelty-type equipment. The A.O.E. offered its fair share of gun games, such as Namco's Shoot Away and Stern's Mazer Blazer. Even Bally's new Professor Pac-Man wasn't a true video as most of us might think since it was really a question and answer quiz game. Also getting more attention than has been the case at recent trade shows was the appearance of over half a dozen pinball machines, including an interesting conversion concept from Gottlieb where the hope is that this direction might also breathe new life into this still struggling arcade game category.

However, only one game stood out from the rest — Dragon's Lair. Although only demonstration models were on hand and the entire sequence of the game wasn't displayed, it's such a revolutionary concept (even compared to Sega's Aston Belt which was previewed at the last A.M.O.A. but was conspicuous by its absence this time around) that it will undoubtedly cause a great deal of excitement in the arcades. Scheduled for release this summer, it could ultimately make the other games at the show seem like mere antiques.

Starcom's

DRAGON'S LAIR

Dragon's Lair, which should reach the arcades early this summer, cost one and a half million dollars in software alone (usually a game costs $250,000 to develop). Four years in the making, with development done by Starcom (a new name in the coin-op industry) and Cinematronics (maker of Space Wars, Star Castle and Rip Off) responsible for the manufacturing and marketing, it's the first arcade game to utilize the laserdisc technology, and the only one to hire a top-notch animation house to create the graphics.

Dragon's Lair involves the story of a medieval knight, named Dirk, in his attempt to rescue a beautiful princess from a fire-breathing dragon. Although the on-screen images are unlike any other

ever seen in an arcade machine before, the game is housed in a familiar upright video cabinet and even uses a standard joystick and action button to move the main character through the action. If a player can react correctly to situations, Dirk survives and goes on to the next rapidly following challenge. Make a mistake and Dirk suffers a horrible death. There are about 600 different situations in 40 locations which must be dealt with. Most take place inside of the dragon's lair—a gothic castle.

For example, in the room of raging fire, the game play is similar to that in the first round of Taito's Jungle Hunt. Dirk is standing on a ledge which is slowly pulling back into a wall. Players must push the action button at the right moment in order for Dirk to successfully grab on to the ropes that swing back and forth in front of him, moving from one to the next while being accurate enough so that the bottom of the rope isn't gripped, since it's burning. When Dirk reaches the last rope, you must then move him forward via the joystick so he can land on a platform. One false move, and he falls screaming into the raging fire below. Next he walks down a hallway where, if you don't react quickly, he can get caught in a steel door that clamps open and shut, and can chop off his foot. Survive to this point and Dirk enters a kitchen where, suddenly, an evil spirit emerges from a large pot. Your task is to make sure our hero can put the cover back onto the top of the pot in time, so it doesn't boil over and kill him.

As mentioned earlier, Dragon's Lair was developed by Starcom, a division of A.M.S. (Advanced Microcomputer Systems) based in California. The animation company responsible for the film work wishes, at this time, to remain anonymous, although sources in the industry tell me it's Don Bluth, a Disney defector whose animated feature *The Secret of NIMH* won great acclaim last year.

Victor Penman, who worked on the story and game design (along with a half a dozen others at Starcom) for almost two years, describes working on Dragon's Lair. "We can put you in a movie or animated cartoon and let you control the main character as well as the action which will take place." When further questioned at the A.O.E., Penman told of his involvement on the project

which began two years ago when Rick Dyer, the president of A.M.S. and mastermind behind Dragon's Lair, only had the game on a paper tape. Penman then took over the game design. From there the two created a film strip and then added a soundtrack, before contacting the animation house and finally putting everything on a laserdisc.

Originally the game was more intellectual, but Penman thought it might work better as an action/adventure film. More games are planned, although, at this stage, no specifics as to what we might expect in the future from Starcom were revealed. Penman did say that some live-action projects were being considered, such as a racing game, and that the hope is to produce at least three games a year. With the logistics of utilizing laserdisc technology for coin-op play apparently ironed out, this projection seems not only possible, but also very likely. After all, much of the difficult work has already been tackled. Penman described some of the problems encountered in writing for a laserdisc story: "In a book, the character comes to a decision point, then decides what he's going to do. For a game like this, however, the character comes to a decision point and many decisions have to be able to be made whether they're stupid or shrewd ones. Basically, the idea of the game is to stay alive, to survive. Sometimes you avoid falling rocks, fire, flood, even hoardes of little critters. Other times you might find yourself on vehicles, where all you can do is try to steer."

I also had the opportunity to sit down and talk with Rick Dyer, the man largely responsible for Dragon's Lair. It was Dyer who kept the project alive during the years when no one believed it would ever work and then put together the creative talent at Starcom. When asked about the industry skeptics who might bemoan the game as being too expensive, he quickly countered with the fact that the laserdisc system is convertible, and that a new game would be available approximately six months after the release of Dragon's Lair, which would be more than enough time for arcade operators to have recouped their initial investment, especially considering the fact that the game will be priced at 50 cents per play.

Dyer continued and stated the belief that a major problem in the coin-op industry revolves around operators slitting each other's throats by offering 12 tokens for a dollar as a way to compete for business, which means that manufacturers won't ever have the capital necessary to afford the development of new games and new technologies. As for Dragon's Lair, we did learn that the home video rights have already been licensed (no more details are available) and Dyer, for one, isn't afraid that this market will hurt the arcade business. "The arcades are pacing the technology. They'll acquaint people with whatever will be next," he says. The new generation of games, which will appear in five to 10 years, will involve other senses such as taste, touch and smell. "People want something that's real," Dyer said. "They want to feel like they're really there." The biggest problem so far has been convincing people that Dyer can really do it. But the reality of Dragon's Lair should help to put many of the doubts to rest.

In fact, stories filtered down at A.O.E. about the laserdisc games other companies were developing. So it shouldn't be too long before you'll have a choice of what laserdisc game, if any, you'll want to play. Once they arrive, though, the arcades are guaranteed to never be the same again.

Williams'

SINISTAR

Sinistar was originally showcased at the A.M.O.A. in late November of last year, but necessary improvements held up its release. Well, whatever they did to it worked, because it's now a very strong science-fiction shooting game. In many ways it's not surprising since Williams has slowly become a code word for quality among many arcaders. Defender and Robotron are two of the all-time greats while Joust, Stargate, and Moon Patrol haven't done too badly either.

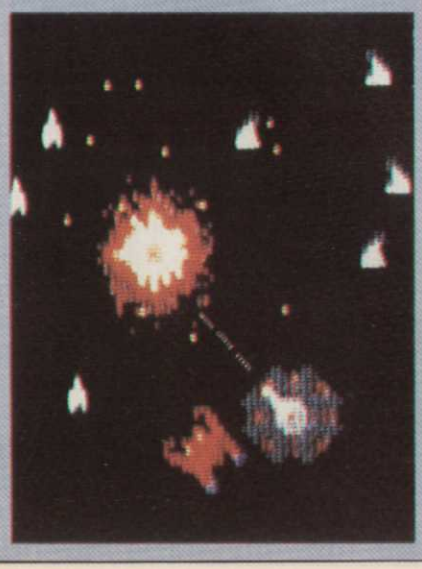
During the course of the game, red "worker" aliens mine crystals out of planetoids and use these to construct the evil robot ship—the Sinistar, billed in the Williams' literature as being "the most awesome adversary ever faced." Once completed, its only purpose is to destroy your spaceship. The best thing about it is that it talks to you while you're being obliterated. As soon as it's been assembled, it warns, "I LIVE!" Then, he'll tease you by bellowing "RUN, COWARD, RUN!!". Finally, he'll scream out his war-cry as he comes in for the kill, "YEEEAAARGHH!!!" Since he also mutters "I HUNGER" when you slip your quarter in, the Sinistar is a great motivator. Defeating that taunting, sneering robot is the same principle that lies behind many people's reasons for playing the video games—to beat the machine.

You have a choice of strategies. You can either go for the worker aliens while they build the Sinistar and try to stop it from being built, or you can get right into mining the crytals out of the planetoids, which you need to manufacture sinibombs, which in turn can destroy the Sinistar, and are, in fact, your only possible defense. Blowing up the Sinistar will give you a substantial bonus and once you do, you warp ahead to worker, warrior, planetoid, and void zones, each of which presents unique difficulties. The other aliens that pose a threat to your spaceship are the purple warrior ships, since they also fire lasers at you.

Basically, the better you get at mining crystals, the better you'll play, and the better you get at firing sinibombs, the fewer crystals you'll have to mine, with the maximum limit being 20 anyway.

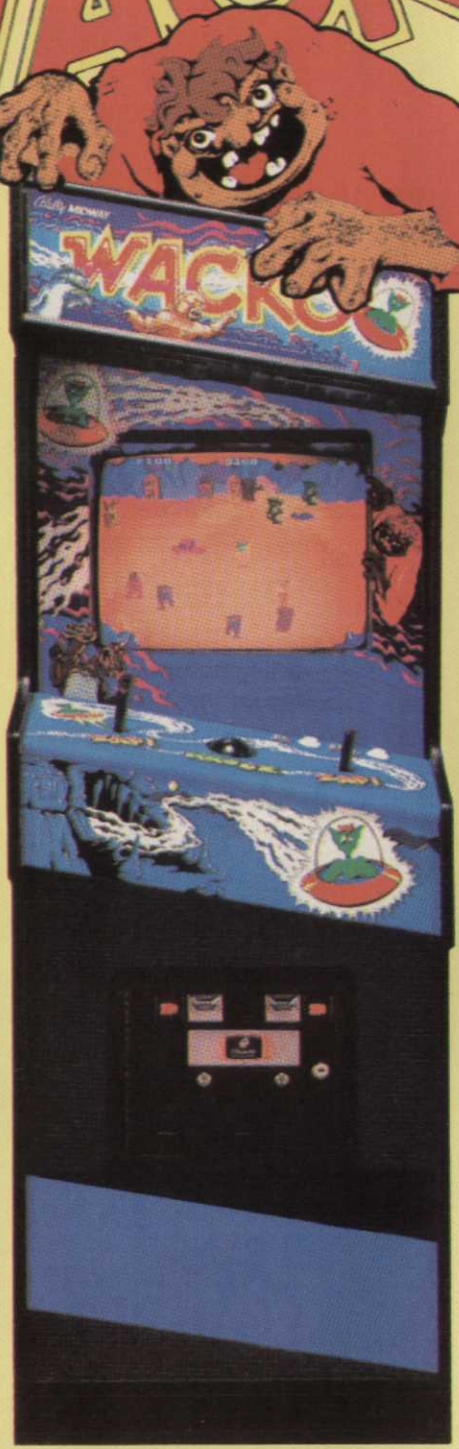
The controls are pretty simple. There's a 49-way joystick, a fire button that fires a laser canon for planetoid-mining, worker-killing, and warrior-blasting, and the sinibomb button, which releases sinibombs. Whatever you do, don't push the sinibomb button by mistake and waste any of your precious arsenal. A deep-space scanner, similar to the map in Defender, gives players a guide to the position of all the aliens in the surrounding area, including the Sinistar, whether it's complete or in some as-yet-to-be-constructed phase. Next to that are the player stats, including score, number of sinibombs, and strategic information, such as "entering a swarm of planetoids." There are enough operator adjustments (including nine levels of difficulty) to make every machine you play a little bit different, so be careful.

Sinistar has excellent graphics, good game play, strong motivation, fast action, and good sound effects. All in all, I don't know what else anyone could want from a good outer space shooting game.



Bally/Midway's

WACKO



Krooz'r, a little green man in a flying saucer, makes his video debut in not one, but two different games. Neither effort has anything to do with the other aside from the main character, and no one at Bally/Midway would say which, if either, came first. However, Wacko takes the prize for the most original cabinet design of the year. It slants diagonally so that the title and the control board are both at the same odd angle. There's a choice of left-or right-side joystick, which allows for shooting in four directions (left, right, up and down). There's also a "krooz," or trackball, which controls the position of the main character on the screen.

The action takes place on a weird alien landscape. In the first round, twin monsters move around on the board. When Krooz'r shoots one, it vibrates. When he zaps the other monster while his twin is still quivering, they disappear in a "poof" of smoke. However, coming into contact with any adversary means instant death. In the next round, the green hero faces more monsters, while after the third round, there are even more (six pairs total). The player receives a time bonus for disposing of the monsters quickly. After that, the monsters can turn into mutants. If you shoot a creature and shoot another who's not a twin, while the first is still vibrating, the two switch body halves. The top of one monster is the first monster's half, while the bottom belongs to the second, and vice versa. Unless you shoot both monsters again, or hit the same unmatched pairs, you'll never get out of this level alive.

You do get extra points for shooting unmatched pairs, before the action features the monsters turning into "babies," or mini-monsters, instead of disappearing, and Krooz'r must kill them off after disposing of the monsters. In the next round, the action is identical, except that after the monsters turn into babies, the babies then turn into eggs. After that, the eggs turn into bats. In later rounds, if all this weren't confusing enough already, the monsters start off as unmatched pairs.

As the game progresses, the action moves through the landscape towards a cave, the monsters' hangout. If you're skillful enough to get that far, you still won't get any further. In essence, Wacko can be viewed as a cartoon-esque Robotron. The monsters don't actively chase the Krooz'r until they turn into babies and eggs, but the game action is similar. As long as the players can keep from touching the monsters and shoot accurately, they'll win. It's an interesting novelty, that's not for everyone. But anyone looking for an unusual game shouldn't be disappointed. The graphics are decent, the sound effects are interesting, and the game play is good, although an 8-way joystick would be a big improvement over the 4-way sticks.

Bally/Midway's

KOZMIK KROOZ'R

Kozmik Krooz'r is more ambitious than Wacko. It also features a distinctive, although more normal-looking, cabinet, which includes a small foot-step and a small-scale model mothership whose reflection appears behind the main playing field screen. This time, the controls include a hand-grip with a built-in "zap" button and a shield button that also aims the zap fire. Your object is to turn the shield button to point the Krooz'r's zap-gun and push down to activate the shield power. The idea of the game is to travel through the mothership

to reach the higher levels of play. And you advance by entering one of the ports when it is lit up (one of them is worth 5,000 points for entry) and receive a bonus multiplied by the level, or "rack," that you've reached.

Every fifth rack is a bonus round during which you can literally collect a free ship. Krooz'r must also maneuver through the Kozmik Junkyard and try to collect the four different parts he needs for his free ship. Comet trails block off his paths through space, and he must watch out for the junkman, a nasty old fellow who would make Fred T. Sanford proud. Each of the first six racks contains a different alien enemy, along with space warps and other hazards. After that the aliens attack in combinations where you need to be on the lookout for eyeballs, because if you don't shoot them in time, they'll launch all kinds of trouble.

Kozmik Krooz'r is a classy game. The graphics are crisp, the mothership is a nice touch, while the different playing levels are challenging, and interesting. The biggest drawback, however, is that it's difficult for spectators to enjoy the show because the screen is blocked off by the cabinet. The foot step is also a hindrance to people who like to move their feet around while they play.

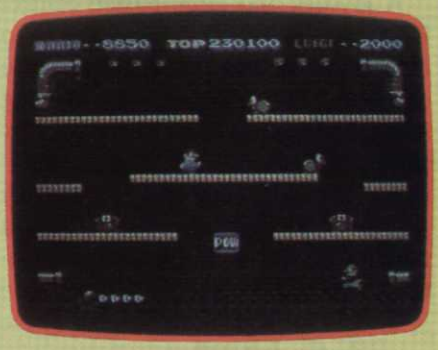
Nintendo's

MARIO BROS.

We were first introduced to Mario the carpenter in Donkey Kong, and enjoyed his conflict with the gorilla and his love for the beautiful girl. Then, in Donkey Kong Jr., we saw the dark side of Mario as he invaded Donkey Kong's jungle habitat and frustrated Junior's attempts to rescue his father. Well, now comes Mario Brothers, the third chapter in Nintendo's seemingly never ending saga of man versus the beasts.

This time Mario is having a little problem with "shellcreepers" (turtles), "sidesteppers" (lobsters), and "fighterflies" (flies). And, since the problem is so prevalent, no doubt more than one man can handle, old brother Luigi has been enlisted to help and makes his initial video game appearance. All the action takes place in a wet, slippery alley. There are four levels of cushioned floors, with two waterpipes spewing out pests at the top of the board and, finally, a brick floor set against a black wall. With game play that's very reminiscent of Joust, this two-player effort features a joystick, and button to manuever the brothers around the screen. What they have to do to stay alive is rid themselves of the different animals by jumping up, hitting the floor directly underneath a pest, flip it over, and kick it into the water before it can recover. Once this is accomplished, a bonus coin drops out of a waterpipe above. If one of the brothers can catch it, there's a bonus, and if all the coins in a round can be gathered up, even more points are scored. If only one player is competing, the action is similar, only Mario is out there on his own.

Either brother dies when a pest is touched that hasn't been flipped, or if they come in contact with fireballs rapidly appearing on the screen once the game begins. In addition to the joystick and jump button, there's also a "POW" button that flips everything on the board when it's kicked, and can be used three times in the game. If you flip a pest and can't kick it off, it will get back up, turn color, and move faster. The turtles and flies have to be kicked once to flip over, while the lobsters have to be kicked twice. The flies are the trickiest pest,



though, since they only occasionally hit the floor.

The first round of play stars the turtles, while lobsters appear in the second round. Flies start their travels in the third, and the fourth screen is known as the "splice" round because blocks of ice appear and freeze the floors, making it impossible to flip any creatures. You'll want to hit the splices before they reach the floors if you ever get that good at the game. And there are also bonus rounds after the first three "faces," or rounds, of play in a level, during which the brothers attempt to clear the screen of bonus coins that are strategically hanging all over the board before the time runs out.

Mario Brothers is an interesting sequel to the previous Donkey Kong games and better than average for two-player action, but it's also very difficult. The floor is so slippery that it's extremely difficult to control Mario or Luigi. Although the cooperative two-player action could make it the game you want to play with your best friend or steady girl, I'm not so sure how many of us can forgive Mario for the way he mistreated that poor little ape, Donkey Kong Jr.

Taito's

ZOO KEEPER

Most of the new models hitting the arcades can be described by referring to another game. They can be summed up by saying "a Donkey Kong-type game" or "a Pac-Man rip off." That's why it's refreshing to find an effort which isn't like any other you've played before. This isn't to suggest that Taito's Zookeeper is totally original, but if it's been directly influenced by something else, I've never seen it, although there are some strikingly familiar sequences.

A joystick and jump button control Zeke the Zookeeper, whose job is to build a zoo around a cage in the middle of the screen that holds the rampaging animals. Zeke can earn extra points by picking up bonus objects (such as watermelons or root beers) that sporadically pop up on the perimeter. A time fuse at the top of the screen indicates when bonuses will appear, and how much time is left. At the end of the fuse all of the animals in the zoo are counted up for bonuses. Every so often a net appears on the perimeter as one of the bonuses and when Zeke grabs it, any animals he catches from an assortment of elephants, snakes, camels, rhinos, moose, and a lion are thrown back into the cage and increased values are scored accordingly.

Building the zoo takes up the first few rounds before players reach the ledge screen. This is a stage where Zeke must reach Zelda, his girlfriend, who is being held hostage by a monkey, all the while trying to avoid coconuts, which are being thrown to knock him off. The zookeeper has to jump from ledge to ledge (which isn't easy, since they move in opposite directions), while he climbs to the top of the board, and tries to pick up some of the bonuses along the way ranging from a root beer worth 250 points to a trophy for 10,000. In addition, there are also "free game" bonuses to be caught during the ledge round (if the arcade operator is allowed by law to offer them).

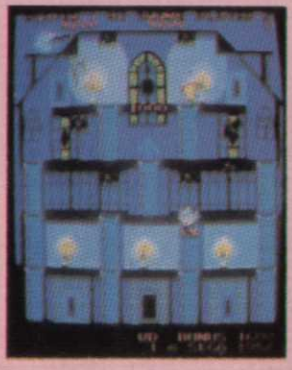
The third phase in Zookeeper, after you've passed the others, is the escalator screen. Zeke must jump over packs of stampeding animals, avoid an electrical cage, and jump onto escalators that will carry him up to his girl Zelda. If you can pass it, you win a bonus zookeeper.

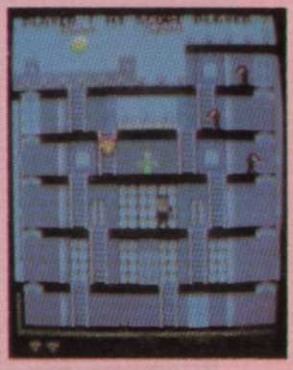
Zookeeper is a good test of several skills, and a high-scoring game with a great deal of action. The soundtrack is nice and noisy and, although the graphics are only average, it's a solid effort with the accent on action.

Sega's

MONSTER BASH

Put Dracula and his bats, Frankenstein along with the Wolfman and a new character called Chameleon Man as well as spiders together in a video game world of castles, houses, graveyards and a cute little cartoon hero, and you've got yourself a Monster Bash. From Sega, this climbing and shooting maze game features three monsters in three different scenes. The hero, a boy named Little Red, is controlled by a joystick. He can shoot creatures with a zap button, but needs a superzap to kill the villains in each story. He achieves this by lighting a candle, running to the "magic sword", and pushing the zap button to "superzap" one of the famous monsters. In the first screen, Little Red shoots bats and goes after Dracula in his mansion. The second screen features Frankenstein in his castle and some wolves. The third board takes place in a graveyard and stars Chameleon Man, who can disappear or change his form at will, as well as a host of spiders.

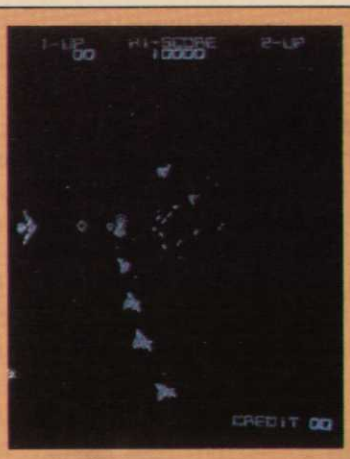




There are some color change spots in the third screen that change the colors of the graveyard and move the doors in the graveyard/maze.

Monster Bash is an inferior game. The graphics are murky, the game play is tedious and there's no motivation to the characters whatsoever. It seems that Little Red just gets his kicks out of breaking and entering into monster's homes and slaughtering them. It was a noble attempt to produce a spooky, scary monster game, but that doesn't mix well with a cute little cartoon guy.

Centuri's GYRUSS

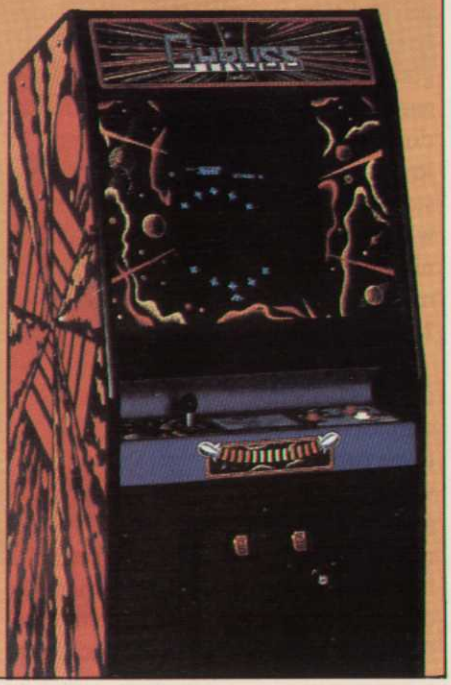


Much has been made of the problems video games have caused for rock music. There has always been a connection between the two, similar to the link between rock music and comic books, or the influence that movies have on video games. Rock music and video games are both primary art forms of what has been labeled the youth culture and, once in a while, someone attempts to marry the two. Sometimes it's even successful. Buckner and Garcia had a big hit with *Pac-Man Fever*, even though it was a terrible song. The Pretenders' first LP had a great instrumental on it called "Space Invaders." Data Age produced Journey, the first rock video game, and someday modern man will find a cure for it. Gyruss uses an existing rock soundtrack (a Bach Toccatta in Fugue by a group called Sky) to enhance a science fiction shoot-'em-up and the result is a better game, so much better that we'll undoubtedly see many more models using a music soundtrack instead of muzak.

This Centuri follow up to their very successful Time Pilot, which also comes via a licensing agreement with Konami, is reminiscent of other games. There are waves of enemy ships flying around the screen in formation which might seem similar to the ones found in Galaga. And, if you hit a blue, round satellite, you're awarded double firepower until that ship blows up. There's even the inclusion of a bonus round, every four stages, during which your ship can't be blown up by the aliens, and you can increase your score by shooting the entire formations of enemy vessels. Much of this game action can also be seen as being inspired by Tempest, since the Gyruss spaceship travels in a circular orbit instead of back and forth, and the enemy ships emerge from the center of the board, before flying to the perimeter of the screen in all directions.

This hybrid results in an extremely successful shooting game. A responsive joystick and a button for rapid firing are the only controls, but there's plenty of action and an almost physical rush when playing and the movement on the screen heats up. In addition, the incredible soundtrack, when added to the special effects and explosions of the game action, add a special amount of excitement to what is a very complete package. There are a total of 23 stages in the game as you travel from Neptune to Earth. The initial rounds are pretty easy, but as the game goes on, the aliens (nicknamed Exarsions, Petarions, Terarions, and Gigarions, all members of the evil Ideoclan Empire) fly faster and faster, and more and more deadly meteors as well as alien bombs fly around the screen.

The graphics in the game are somewhat mediocre, but that's the only weakness in Gyruss, and its strengths more than make up for it. Centuri took the best design elements out of two classic games, added some imaginative music, and put together a game that's a refreshing video experience which seems to have "hit" written all over it. ▲



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THE FLIPSIDE

Making A Double Play for Coin-Op

By Zelmo

Once you realize that coin-operated amusement equipment has been around since before the turn of the century, it may be easier to believe the notion that very little of what might be considered innovative design direction hasn't, in some way, shape or form, already been done before. Through the years arcade staples have always existed, which, for whatever reason, appear, disappear and resurface once again for new generations of players. Such is the case today as the industry gradually turns back the pages for inspiration in product development which, although borrowing heavily from past accomplishments, it is now updating to fit the more modern technology.

One such example is Stern's Mazer Blazer featuring what the company calls "the best of both worlds — the old-fashioned fun of a shooting gallery and state-of-the-art video technology." Another example is Williams' dual-player, head-to-head pinball machine Joust, which brings back a design concept attempted over a decade ago, with the hope that, maybe now, the time will be right. Taken together, these efforts seem to indicate a potential trend in offering more diverse forms of coin-op games to help break the monotony of what has been the norm for the past few years.

Stern's Mazer Blazer

When you've been around the business long enough, you're destined to experience a feeling of *deja vu* when a new game is released and you find yourself wondering "where have I seen *that* before?" Sometimes it's more obvious than others, although this isn't to suggest that the resurrection of any idea can't be viable given the state of the industry and players' desires.

Seeing Stern's Mazer Blazer brought back many memories of an arcade attraction that was a mainstay of coin-op from the Thirties to the late-Sixties—the gun game. Interestingly, most video game shoot-'em-ups have been derivations on the theme, with buttons or joysticks replacing the old twenty-two stock and barrel. There was even a time when some arcades offered live ammunition shooting galleries and intrepid marksmen could spend a quarter to get 25 shots, with the chance to win a prize.

Obviously, the hope here is that today's players might be ready to set their sights on an updated version that delivers two-fisted action with a variety of video screen images. Basically a maze game, Mazer Blazer features a series of racks (up to 12) as well as a corresponding number of bonus rounds where the object is to stop advancing enemies before they reach a center base located at the middle of the screen.

Designed by Joseph Joos and Brian Poklacki, the eye to detail is apparent just by looking at the different types of enemies in the cast of characters. There are 12 distinct creations, all having their own characteristics and unique qualities. From The Tongue, which is an extraterrestrial and maddening creature, to the sometimes invisible Eyeball, or The Jumper, capable of leaping walls, as well as The Drill, who can tunnel under walls and reappear anywhere, not to mention The Bridge Builder who lays out and hides behind bullet-proof bridges, Mazer Blazer brings into play a range of strategies and approaches for potential consistency with the game.

The aim is to shoot the aliens before they reach the center base, with higher point values awarded the further away they are from the goal. The screen is divided into four colors that are keyed for scoring, including blue for 400 points, green for 300 points, red for 200 points and black resulting in 100 points. The walls of the maze are orange or grey, with the former being indestructible and the latter capable of being shot away either by the enemies on screen or your own firepower. When you do shoot grey walls, gaps are left in the maze that can then be used by the attackers in their quest to reach the center base, while also lowering your Wall Bonus value.

Displayed at the top of the over-sized 30-inch screen, this Wall Bonus starts at 2,000 points for the first level and increases by 1,000 points for each succeeding rack. And each time a section of the maze is destroyed, this amount will decrease by 200 point increments. Survive the assault and you're ready to play a Timed Bonus round where eight aliens, worth 500 points each, must be hit as quickly as possible, before you move on to the next level.

With the lining up of targets accom-

plished via an on-screen sight, Mazer Blazer also allows players to selectively use a freeze target, limited in number, which, when hit, will stop all the movement on screen momentarily so that you can pick off some of your attackers. It's a fast-paced game, which may take some time getting used to, but once you do you might find yourself thinking about what you've been missing.

There are some problems, however, beginning with the design of the laser gun, which doesn't have the *feel* of the older generation of gun games, where players had a sense that they were gripping something that was almost real. In addition, the placement of the handles for the gun might not feel comfortable depending upon how tall you are and whether you mind firing from a waist-high level. This also tends to detract from the sensation of actually aiming at the targets on screen from a perspective behind the gun.

The large size of the screen isn't without its flaws since there's a bit of distortion caused by the image reflecting onto a mirror and back to the player. But all these things aside, Stern's Mazer Blazer is an enjoyable and challenging return to yesteryear that hasn't lost much of its inherent appeal in this updated translation. So give it a shot and see what you think.

Williams' Joust

Despite enormous success with its video games, beginning with Defender and continuing on up through the present with Sinistar and Bubbles, Williams Electronics hasn't ignored the development of a product line that was a staple since it began business in 1946. At a time when the majority of players seemingly want more and more video variations, Williams has chosen not to abandon innovative approaches to pinball machine design.

Having taken flipper games to a new level of excitement with the introduction of the multi-dimensional Black Knight at the end of 1980, the company has been willing to experiment and explore different creative directions. The last couple of years have been marked by some notable examples, such as Hyperball with its video-inspired playfield programming in a pinball cabinet that incorporated dual-firing controls; Varkon which brought pinball down to size in a video cabinet complete with joysticks; the limited test of Thunderball featuring multi, multi-ball play; and now the new styling and game play of Joust.

It's not as if head-to-head pinball play hasn't been tried in the past. In fact, Gottlieb brought out Challenger in 1971, with a very similar configuration, but the response never warranted further development. Then in 1975 at the fall AMOA trade show in Chicago, a company called Komputer Dynamics, based in Indianapolis, Indiana, offered its version, Invasion Stratogy, which utilized solid-state components. The company and the game were soon forgotten.

But now comes Williams with a novel game and the hope that the tie-in of name and graphics to its still-popular Joust video will somehow rub off on the flipper machine and at least get players' attention. Although it's possible for one person to play Joust and control both sides of the split playfield, the strength of the game is really based on two-player, head-to-head competition.

The same size as a conventional Williams' pinball machine Joust is built on a pedestal with both sides of an identical playfield sloping down from the center and the objective being to score the most points against an opponent who is trying to do the same. Play begins with a ball automatically kicked out to both sides and when the game is over it really isn't, since at this point both players have 30 seconds of unlimited flipping in an attempt to rack up even higher scores.

The playfield consists of two spinners at the center of the board, separated by a stationary target, which is flanked by a bank of three drop targets. Move further over to the left and two in-line drop targets front a tunnel to the other side. At the right, balancing out the design, is another stationary target (one of three Hunter Targets), as well as a Lava Pit kickout hole. Two flippers at the bottom finish off the layout highlights, where the array of shots, for the most part, are all rather short but no less satisfying given the access from left to right and

(Continued on page 62)

Flipside

(Continued from page 61)

right to left as well as via reverses from the flippers.

The scoring and strategy have been neatly interwoven to maximize competitive play on Joust. Knock down a drop target in the right side bank and a light will stop on a value from 30,000 to 200,000 points. The first player to then complete his bank will score the designated amount and cause both his and his opponent's target bank to reset. Meanwhile, the left side drop target bank awards bonus multiplier values up to five times. When this is achieved, the next time the bank can be completed will result in collecting an egg bonus for even more points, remembering again that you're in a battle with another player and trying to do all this first.

Elsewhere on the board, making the three Hunter Targets will incrementally advance the value of that left side tunnel from 40,000 points on up to 320,000 points, with the sequence also leading to the potential reward of an extra ball. As for the spinners, the one on your left will score points for you if you hit through it, but do the same with the one on your right and it's points for your opponent. Other subtleties have been built in, but to truly appreciate Joust you have to play it.

There's no question that the game has been well thought out with fully, integrated play action and colorful artwork that only enhances the overall effect. But can Joust make it? In a day and age when video still prevails, the novelty of a dual-player pinball machine isn't without merit or even appeal, however, the game is destined to get lost in the shuffle if Williams doesn't do any promotion for it. Joust would be the ideal machine for tournaments or even league play, but in all probability you'll have to look far and wide to find it. ▲

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Double Speak

(continued from page 8)

Slipped Disc

On page 54 of your March 1983 issue, you state that "Roberta Williams... has since produced several bestsellers, including Zork, a 12-disc epic...." Your writer surely meant to say Time Zone instead, because Zork, while certainly a bestseller, is produced and sold, and the name is claimed as a trademark by Infocom, Inc., of Cambridge, Mass.

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Feedback Results #5

Favorite Department: Soft Spot; **Favorite Feature:** The Life and Times of Q*Bert and Joust; **Favorite Blip:** Licensing; **What I'd like to see less of:** Pac-Man; **What I'd like to see more of:** Tie between game reviews and articles about ColecoVision; **Favorite Maze Game:** (arcade) Ms. Pac-Man, (home) Tie between Berzerk and River Raid; **Favorite Shoot-'em-up Game:** (arcade) Centipede, (home) Zaxxon; **Favorite Climbing Game:** (arcade) Donkey Kong, (home) Donkey Kong; **Favorite New Game:** (arcade) Q*Bert, (home) Donkey Kong Jr.; **Biggest Disappointment:** (arcade) Baby Pac-Man, (home) Pac-Man; **Most Challenging Game:** (arcade) Tie between Joust and Tempest, (home) Zaxxon; **All-Time Favorite Game:** (arcade) Joust, (home) Donkey Kong Jr.; **Favorite Sequel Game:** (arcade) Donkey Kong Jr.; **Game Ideas:** 3-D A-Team game. The A-team has been captured by terrorists. The player must hop into a jeep and use his anti-tank gun to blast the enemy tank. Once you reach the enemy camp, use your Uzi machine gun to blast the terrorists and their camp while the rest of the A-team runs back to the jeep. Once you leave the camp, you have to fight your way through tanks, machine gun nests and land mines. After getting back to home base, you start all over again, with each level being harder; Bigfoot; A game based on *Lost in Space*. To play, you round up the Robinson family, mine enough fuel and blast off the planet before it explodes. Bonus if you find Earth; Krazy Kat: A climbing game where a rodent climbs over boulders to have the privilege of hitting Krazy Kat with a brick. Mrs. Donkey Kong. ▲

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SOFT SPOT

A Holiday Cart Display: Catching The Fireworks at Home

By Perry Greenberg

As the competition heats up in the video game industry players are beginning to see a proliferation of home carts that, on the average, are better than ever. What's surprising has been the failure of some 'name' games to deliver a caliber of graphics and action that players might have expected. Along with this has been a questionable trend to use familiar figures or themes that were hardly successful in their original form, with the hope that the home game versions will somehow take off.

Besides this constant effort to tap other sources for ideas or themes that will catch on in a video game format, the emphasis on bringing coin-op hits home hasn't decreased. In fact, it's on the upswing, with the head-to-head battle shaping up between the Atari 5200 and ColecoVision. A look at current as well as upcoming titles for both systems seems to indicate a renewed effort to tap the widest range of arcade games.

Smaller manufacturers, who may not have the bucks to compete for arcade hits, aren't standing still but are trying to stay alive in the video game jungle by offering games with better graphics, better sound and variations in play. Such is the case as *VIDEO GAMES* approaches its second year as the industry shakes up and the summer fun heats up with everything from undersea battles to performing surgery or getting a chance to realize that childhood dream of finally joining the circus.

Seaquest (Activision)

Activision, the company that set the standard for graphic excellence in games for the VCS, has done it again with **Seaquest,** a well-designed game that's a feast for the eyes but does not offer much nourishment for the mind.

The player controls a highly-mobile, realistically drawn submarine in a quest to retrieve divers returning to the sub with undersea treasure that they've salvaged. Twenty points are awarded for every kill of sharks and enemy subs, and each time you surface with six divers an additional 600 points are awarded while kill values are increased by 10. Also, additional points are earned if you surface with oxygen to spare. When the oxygen is depleted, a warning bell sounds and failure to surface quickly results in the loss of one of the three subs. Additional subs are awarded for every 10,000 points. There are two variations, for one- and two-player games. In the latter,

opponents alternate play after the loss of a sub.

Enemy subs are more dangerous adversaries than the sharks because they can fire twin torpedoes, so attack them from the rear where they are defenseless. Sharks are tougher to hit than subs because they don't swim in a straight line, so the timing and placement of shots will be important. Even though the divers swim frantically when a shark is on their tail, they're never really in danger. This effect is merely ornamental—a nice touch, but irrelevant to game play, so never rescue a diver when it means risking a sub.

The graphics, although appealing, do not make up for the game play which is limited to moving the sub back and forth in the limited environment of the screen. Since the screen doesn't scroll, it feels like the action is taking place in a fish tank. The sharks and enemy subs move so slowly that evading them is not a challenge. Even the speed of the torpedoes is so sluggish that eluding them is also rather simplistic. Seaquest is, unfortunately, easy to learn and even easier to master, which may not make it the type of game you want to keep on going back to.

P.T. Barnum's Acrobats (Odyssey)

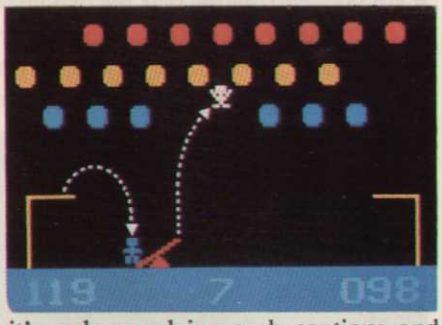
A colorful game of skill that's a variation on the Breakout theme, Odyssey's **P.T Barnum's Acrobats** offers a difference in that instead of controlling a paddle and moving it back and forth, you control a lever on a fulcrum flanked by two figures, the acrobats. The joystick moves the apparatus horizontally along the bottom of the screen, with one acrobat situated on a platform to the left and the other resting on one side of the lever. Pressing the red button causes the acrobat to leap off the platform. It's your job to catch him with the unoccupied part of the lever. If the acrobat lands on the lever he catapults his partner skyward where there are columns of balloons. Each time the partner hits a balloon points are scored. Also it's possible that by hitting one balloon he will ricochet and hit others. If the acrobat fails to hit a balloon he will come straight down. Catch him with the unoccupied side of the teeter to catapult his partner skyward and continue the action.

When you fail to catch an acrobat he is ignominiously squashed and waddles back to the platform. Back on the starting platform, he automatically resur-

rects himself as a fearless circus performer, ready to leap skyward with his arms flailing as he pops balloons. Periodically the screen will turn red and a phalanx of bonus balloons will appear, offering the chance to rack up dozens of points.

There are five game variations, each with a one- or two-player mode, making a total of 10. Some variations include a middle platform. When an acrobat makes contact with any platform he automatically walks to the end of it and leaps off as he does at the start of the game. In the variations that utilize this, it is possible to choose either between a stationary platform in the center of the screen or one that randomly moves between the two side platforms.

The acrobats have 10 lives between them and after 10 splats the game is over. Voice has also been added to the action and, as with all Odyssey fare currently featuring this cosmetic enhancement,



it's only supplying such cautions and exclamations as "Hurry," "Look out," "Incredible," "Help," "Squash," "Ouch" and the deserved "Turkey" for foolish misses.

Anticipation is the key to success in this game. Follow the movement of the acrobat who is aloft and try to position the apparatus so he lands on the edge of the lever as far from the fulcrum as possible. The further the acrobat is from the fulcrum the higher he goes and the more balloons he'll pop.

The excellent sound effects of the acrobats careening down on the teeterboard, accompanied by the colorful graphics and the antics of the amusing acrobatic figures, make for an amusing and delightful game that's not only a welcome addition to the Odyssey game library but would make the game's namesake, old P.T. Barnum, proud.

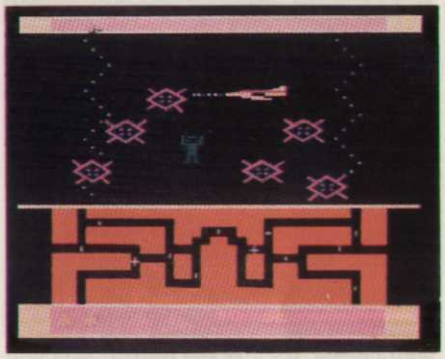
Flash Gordon (Fox Video Games)

Once again Fox has made a cinematic flop into a successful video game. *Flash Gordon,* the movie featuring a bleached-blond Sam Jones, was an expensive, campy attempt to capitalize on the success of the *Star Wars* craze with an overbudgeted, underproduced, Dino DeLaurentiis flash in the pan. The video game bearing the same title, however, is an exciting, creative and challenging effort with some of the most colorful and well-designed graphics ever seen in a VCS cart.

Flash Gordon ingeniously employs two of the most popular video game genres in one successful package, delivering a combination maze and sci-fi shoot-'em-up which not only requires strategy and great reflexes, but also provides enough diversity in play to keep you involved and absorbed in an entertaining contest of speed and skill. The game utilizes a split-screen playing field. The top half shows a Defender-like rapid firing rocketship whose flight is joystick controlled. The object is to guide the ship through the perilous tunnels of Spider City, where passageways are laden with deadly hazards that must be either confronted or evaded. The tunnels are depicted in the lower half of the screen, which is essentially a radar map. A player must conquer the city by destroying as many of the spider warriors as possible, using the map as a guide for maneuvering the spaceship. In your travels you'll encounter hatching pods depicted as vertical lines on the lower scanner.

When you make contact with a pod, six spider warriors will hatch at once. If you succeed in shooting at least five of them, a shield appears around the ship, making it invulnerable. The temporary defense is invaluable when confronting invisible disruptors, which send out deadly debris in all directions that will destroy the ship on contact. This is really the greatest danger in trying to complete a screen, so watch for them on the map. They're represented by large crosses and it's best to get through them as fast as possible or avoid them while hunting down pods. If you find yourself unavoidably approaching a disruptor watch for a disruptor generator that will whiz by first. These look like plus signs, and if you can successfully destroy a generator, the disruptor will be frozen and you can proceed through the tunnels without being followed.

Besides disruptors you'll encounter patrol ships that can be destroyed directly via firepower or by colliding with them when you're shielded. When you're not shielded, a collision with a patrol ship will cost you a ship. From time to time you'll see a stranded fellow spaceman. Rescue him by making contact for 70 points. At all costs don't fire on him. If you accidentally kill a spaceman it will cost 1000 points. Life, after all, is precious in Spider City.



There's much in the way of strategy when playing Flash Gordon since you also have the ability to escape out the sides of the city and reappear at the other edge. Shoot at the warriors just as they're hatching when they're harmless and stationary. Keep your eyes on the map but watch for patrol ships that are not displayed here. A one-player game where harder levels can be reached only by conquering cities and working your way up, Fox should have considered a two-player mode and the use of a selector switch to go to tougher levels at the start of play for Spider City assault veterans. But these are minor flaws in an otherwise exceptional game.

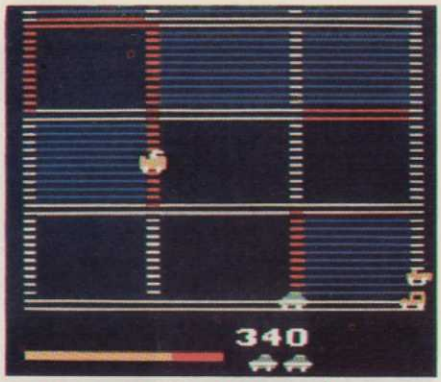
Demolition Herby (Telesys)

The moment you plug in this Atari VCS-compatible cart, there may be a feeling of *deja vu* with the question being "Where have I seen this game before?" The answer is Amidar, even though **Demolition Herby's** title conjures up thoughts of Turbo and Grand Prix. In actuality it's another maze game that involves patterns and dodging. As in Amidar the object is to fill in boxes on a grid by going around them. Each time a box is surrounded by a little, crudely-drawn car, the box blocks out and points are awarded.

Also, as in Amidar, there are pursuers—cars and trucks bent on colliding with Herby and knocking him off the tracks. After three collisions the game is over. A player can retaliate against these

vehicles by smacking them from behind, knocking them off the track. This results in the accumulation of bonus points.

Avoiding pursuit cars may be easier than tangling with them, but confrontations are inevitable since they not only try to collide with Herby but undo your efforts. They change a line you've gone over from red back to its original



white color. Besides the pursuit cars you must also be aware of a gas gauge that is replenished slightly each time you complete a square. A warning bell, however, will sound when fuel is critically low and failure to quickly envelope a square will result in the loss of a car. Herby does seem to have the deck stacked against him except for the fact that he's equipped with a dubious trump card.

When Herby seems doomed to be caught by one of his pursuers, push the red fire button on the joystick and send Herby into overdrive. He'll take off like a rocket, but in doing so a lot of fuel is consumed. Any territory covered when Herby is in overdrive isn't awarded to you, except if Herby succeeds in rear-ending all three pursuit cars. When this is accomplished, putting Herby in overdrive will change the track's color and you can rack up a large amount of extra points as well as territory.

There are three game variations. Games one and two are relatively easy versions, while game three is very challenging and should be played after some familiarity with the cartridge. Herby sports the same mundane graphics as Amidar but features a scrolling screen, allowing for a larger area of boxes to cover. This feature speeds the game up without having the action being too limited. Strategy is the key to success. Don't box in individual squares; instead, try to make larger patterns where you can square off more areas with less movement. Use overdrive to not only escape tight situations, but to rear-end cars before they change course and are facing you. Always try to clear the track of the three collision cars so you can shift into overdrive and cordon off a greater amount of territory at once. Move quickly after colliding because pursuit cars can ricochet back and knock you off the track.

In the two-player version (activated by merely attaching an additional joystick), the player has only limited control over the collision cars. In fact it's almost mandatory to play the tougher, third-game selection because, at that level, the collision cars move with some expediency. With games one and two the movement is so slow that it's a bore. Even the speediest selection does not provide much head-to-head competition. When you control the collision cars you have really only limited control over the quickest of the three and your job is merely to act as a spoiler. There are no points awarded for this at all, with the only gratification being to inhibit Herby's score. This may be a suitable reward for a computer but hardly ignites human competitive fires.

Demolition Herby is a decent, though austere-looking, maze-and-dodge game that requires quick reflexes and subtle strategy. Unfortunately, it's still a far cry from the quarter-gulping classic still popular in the arcades.

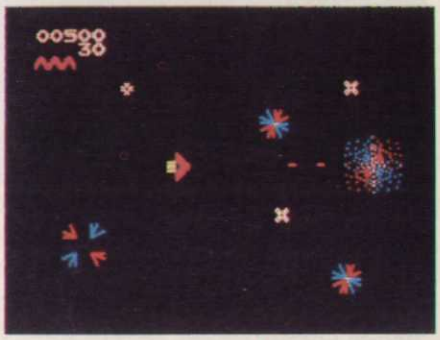
Space Fury (Coleco)

The Asteroid theme has to be included as one of the great video game concepts along with the legendary Pac-Man and Donkey Kong. So it goes without saying that it, too, would have its share of imitators. **Space Fury,** Coleco's answer to a suitable Asteroid game for ColecoVision, seems to fit the bill.

The play begins with an image of a cyclops-like alien who goadingly challenges you to do battle. Then, as in Asteroids, you find yourself in control of a small arrowhead-shaped ship in the center of the screen. The joystick controls the rotation of the ship and the right fire button is used for firing while the left button controls thrust. Your attackers begin as small objects, which join together at different places on the screen, becoming large attacking ships that emit fireballs and are bent on colliding and thereby destroying, your ship.

It's best to destroy as many of the small ships before they become the far deadlier, larger ones, but this is extremely difficult since they join *very* quickly. There's no way to stay in the screen's center for very long without having an enemy ship bump you off, so you must thrust and fire to stay alive.

In between four combat rounds like this are docking rounds in which the player joins with one of three mother ships and takes on its distinct firing capabilities with triple the amount of power. One mothership provides single-direction, triple-burst firing out of the ship's nose. This is great for destroying an enemy in front but it requires a quick rotation to confront enemy attackers at the rear and on the sides. Another mothership provides three simultaneous, single-burst firing from the front and sides of the ship. In this mode aim at the primary targets from the ship's side for a greater line of fire than the front. In the third mode shoot at the main targets from the rear for two lines of fire rather than the front, which only has one line of fire. Since the rounds do get progressively harder choose your



least favorite mothership to dock with for the first round, and the one you are most accurate with for last.

This game presents a challenge with enough twists to the Asteroids theme to give it a game personality of its own. And it's a good one at that.

Defender (Atari)

Defender, a perennial in the galaxy of great video games and the model for a host of imitators in home carts as well as coin-ops, has been recreated for the 5200 with remarkable fidelity in looks, sound and game play to its arcade originator. Especially so since the arcade game is one of the few that uses a screen with the same dimensions as a home TV.

There are fewer buttons, of course, to be concerned with in this home version, as the joystick alone can change direction. The additional buttons on the con-

trollers of the 5200 do come in handy here because, unlike Defender for the 2600, you don't have to go below the city to activate a smart bomb—either of the top fire buttons will do the job.

The idea of the game, for those of you who have been on expeditions to New Guinea for the last couple of years, is to

defend a planet and its inhabitants from a host of insidious invaders. The primary enemies are green, diving, bell-shaped aliens called landers. In each wave there are 10 inhabitants to protect from the landers, which will attempt to swoop down and kidnap the inhabitants. You must blow them up before they do so. Once they've got an inhabitant they will attempt to transport him to the top of the screen. When they reach their goal the inhabitants turn into deadly mutants, which are far more dangerous than landers. They quickly make a bee-line for your craft, while firing at it. Besides landers and mutants there are a host of other nemeses to deal with. The most dangerous are the baiters, which look like small, green flying saucers with little red eyes. They're faster than your ship and more maneuverable, so if you're not much of a flyer, use your smart bomb immediately when they show up or you're certain to lose one of your ships.

You're given three smart bombs along with three ships, and can earn an additional one of each at every 10,000 points level. Smart bombs will wipe everything off the screen and are a terrific weapon. Unfortunately they're in short supply so use them judiciously. Ideally smart bombs should be a weapon of last resort, but it's better to lose a smart bomb than a ship, so try to use them when the screen is filled with enemy forces to maximize the effect.

Defender was probably the first arcade game to employ a radar screen which locates the aliens on the entire planet. Glancing at the scanner is a tremendous aid in your battle against these forces of evil for it shows you both the numbers and types of aliens still on screen. Quickly engage as many of the enemy landers as you can since the longer you wait, the more of their deadlier allies you'll encounter. Try flying and shooting at the same time, but initially, while you're still a novice, you'll have more success if you proceed cautiously into the fray, and attack by hovering and firing. Use the scanner to line up your targets so when you meet them they'll be directly in your line of fire. When you wipe out all the landers on the scanner you'll proceed to the next wave, in which you're given an additional ship and smart bomb, plus a bonus of 100 points for every human saved during that level.

During the battle if you destroy a lander while he's lifting a humanoid you score 250 points if he falls safely back to earth, and 150 for destroying the lander. But, if the human is too high up, you must catch him in mid-air or he'll crash to earth. If you succeed in catching a humanoid in mid-air and lower him safely to the planet's surface you gain an additional 1000 points. Besides baiters, landers and mutants, there are also bombers and pods. The former send out trails of mines that appear only momentarily and can be avoided but not destroyed. Pods are far deadlier and must be destroyed immediately before they send out swarmers which are lightning fast and home in on your ship.

If the aliens succeed in capturing all the humanoids the planet will blow up and you'll have to face them all in space. Since the landers will now be mutants, your two chances of surviving very long are slim and none. But if you can miraculously survive to the fifth wave, the planet will reappear with the humanoids intact. If you run out of smart bombs and are hopelessly outnumbered, there is a weapon of desperation. Pressing any of the keypad buttons will send you into hyperspace where you suddenly disappear and reappear almost anywhere. The danger here lies in the fact that you may reappear in an even more perilous place or blow up upon re-entry.

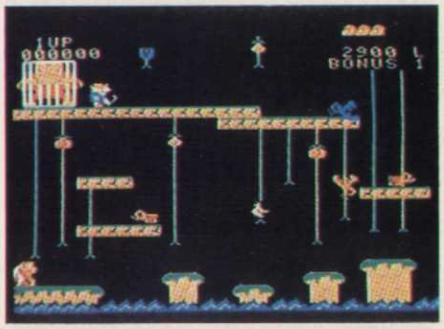
Defender is a very complex game of skill, razor sharp reflexes and strategy. The easiest way for owners of the Atari 5200 to know if it's a game for them is to go to the nearest arcade and invest a few quarters in playing the arcade model. There's hardly any difference between the two versions, and that alone may be reason enough to buy this cartridge.

Donkey Kong Jr. (Coleco)

Coleco owes much of its success for incorporating Donkey Kong as a freebie cartridge with purchase of the Coleco-Vision unit. I've never been much of a fan of the great Kong but I do find his son to be the hero of an infinitely more enjoyable game. The same holds true of the extraordinary home version of the game. **Donkey Kong Jr.** is as delightful as its arcade counterpart. True, it may not have all the details of the coin-op model, such as the introductory rounds portraying Mario lifting the cage holding Donkey Kong, or the little ape going bug-eyed when he's bitten, but these are minor omissions to a game that may be one of the best representations of any arcade-home conversion.

The opening screen shows Mario alongside Donkey Kong who is caged behind bars at the top of the screen. It's Junior's job to rescue him by retrieving a key near the cage. In this sequel game, Mario, the hero of Donkey Kong, has become a treacherous villain who sends out snapping jaws to crunch down on our youthful and intrepid rescuer. The player must either dodge the snapping jaws or bop them with the fruit that is hanging on vines.

Junior is positioned at the bottom of a screen which is composed of vines and



islands. The best way to get to the first key is to make your way to the lower platform and hop on to the first island and from there, hop over to the second and third island. Don't bother jumping to the last island because you can swing to your objective without risking that unnecessary jump. Remember, Junior moves faster when he's climbing two vines at once so use that knowledge to

escape tight situations and knock down fruit on the snappers.

The next round is the chain round, which is the easiest of the three screens since it involves climbing and swinging with a minimum of jumping. Since Junior can climb two vines at once, you can push two keys up at the same time provided they are on adjacent chains, but be careful since you're exposing Junior to twice as much danger. Even though he climbs faster on two chains, Junior lowers himself faster on one, so always descend in this manner.

Speed is of the essence in this game so when climbing, it's advisable to use two chains at once even when you're only moving one key, because you'll move it along faster. Remember you can also wipe out snappers and birds by not only being above them and dropping fruit down, but by touching the fruit when your pursuers reach it above you. Use this technique cautiously because you must touch the fruit at the exact time the snapper does or you'll wind up losing a life.

Suffice it to say that Donkey Kong Jr. is a great home game that mirrors its arcade counterpart as well as we've begun to expect from Coleco. True, it lacks the incredibly detailed graphics of the arcade, as well as Mario's Hideout screen, but it's as good a home game as I've ever played.

Countermeasure (Atari)

The tank battle game has been a perfunctory entry for almost every home video game system. Not to be outdone by lesser systems Atari has launched **Countermeasure,** which is an exceptional effort. Not only is this a solid war game, where you must incorporate skill and strategy, but it has some of the most spectacular graphics you're likely to see in any 5200 cart.

The storyline here is that terrorists have hidden nuclear missiles in silos surrounded by lethal cannon-firing pillboxes. It's your job to destroy all the silos with your three tanks before the 10 minute launch sequence runs out. If you fail to do so a colorful global map reveals itself on the screen, signalling a 15-second countdown in which you can try to guess the three letter disarming code before the missiles (indicated by advancing dotted lines) impact on Washington D.C.

If you fail to guess correctly, the missiles explode and the map changes first to an ominous shade of purple and then to a ghastly video skull and crossbones that will simply knock your socks off. I have to say for a company with a reputation for conservativism this video display is truly nightmarish. However, if you do guess correctly a picture of a large moon, hovering in a navy blue sky silhouetting a gun turret on a mountain top, appears with accompanying, soothing congratulatory music. You're also awarded 10,000 points plus an extra tank at this time.

Despite the wonderful secondary graphics, the primary graphics on the scrolling screen are pretty unspectacular and look more like Intellivision visuals than Atari's. But the game play remains interesting as you develop strategies to save the nation's capital. The top fire button will fire your tank's cannon; the bottom will release your turret, which can then be aimed with the joystick, while holding that button down. After you release the button, the joystick will again control the tank's direction. The pillboxes are tough adversaries and it's difficult to destroy all the silos before the launch sequence runs out.

Your best course of action is to try to guess the disarming code sequence before then. The best way to do this is to dock at supply depots whenever possible. The depots not only refuel your tank but give you clues to the code. Once you receive two of the letter clues you have enough information to then dock with a missile silo and successfully solve the code (because you have only one letter that's unknown). It's a good idea to keep track of clues by writing them down as you discover them.

When advancing on pillboxes, position the turret in the desired direction while you're still out of range. The turret seems to have a hair trigger and you probably won't get it in the right position when you're in the enemies' range. In the latter stages of the battle you'll also encounter enemy jeeps, tanks and cruise missiles. The jeeps and tanks have half your range so engage them when you're far enough away to utilize that advantage. Cruise missiles move too fast to be intercepted by your fire, but they'll hit any obstacle they encounter before you. When you hear one of these missiles approaching, move away from open spaces. Also, always take on the pillboxes when their guns are turned away from you, and stay out of range until then. Keep on auto tank since moving and firing is your best tactic. There are 10 skill levels with the higher ones offering faster play, so work your way up gradually. There's also a two-player mode where you alternate with your opponent after the loss of a tank.

Countermeasure is a challenging and interesting game that employs the seldom-used ground battle scenario as well as I've seen so far in a home cart. The sound effects of tank movement and shell explosions are as realistic as those of good war movies and there are enough variations in play to keep you involved and absorbed. And, how many opportunities are there to save the nation's capital and win the Congressional Medal of Honor?

Squeeze Box (U.S. Games)

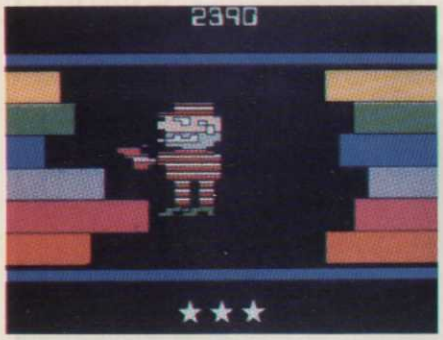
Employing the Breakout variation more explicitly than any of its competitors **Squeeze Box,** by U.S. Games, lets you control an adorably rendered convict, all decked out in prison stripes and five o'clock shadow. This little character is trapped in a nightmarish room, the walls of which are made of rainbow colored bars. The convict is armed with an automatic pistol that he can fire to repel the bars which are closing in on him. Once any of the bars touches any part of him, he loses one of his threee lives. When all his lives are exhausted the game is over, signalled by a dancing devil. The idea of the game is to shoot out the bars and make a safe pass to the next room where the walls grow even faster. You control the movement of the convict with the joystick and the direction of fire with the stick when you hold the fire button down. At first the game seems like it's much too simple to be of any interest to anyone over the age of 10, but it soon becomes apparent that it takes strategy and skill to continue the action for a high

score as the game heats up and you go from one room to the next.

Since you're awarded points for the amount of blocks you shoot out, stay in the rooms as long as possible before making safe passage out. The later rooms become much harder to deal with and you should rack up as many points as you can in the easier early rooms. Stay as close as you can to your targets so your gun will fire more rapidly. Concentrate on shooting one side before going for bars on the other, but in the early rounds do try to shoot out all the bars for an additional life. Only change your shooting angle after you've erased a whole row of bars. Changing angle or moving the convict unnecessarily wastes time.

There are six game variations. Game one has bars advancing on both sides: game two has bars advancing on only one side, but instead of shooting them all out you must change their color to white. When this is accomplished, a path is created for you to move on to the next room. In game three, again, bars only grow on one side but the other side will also grow in on you. Since it cannot be repelled, fire on the side where the bars grow individually: but keep your eye on the other advancing side as well.

In this game you will also encounter flashing bars. These are worth 20 points while colored bars are worth only 10 points and safe exit from a room awards you 100 points. Games 4, 5, 6 are iden-



tical to 1, 2, 3 respectively, except there are twice as many bars to shoot out.

U.S. Games seems to almost have a monopoly in providing the cutest cartoon-like graphics being created for the Atari VCS. I especially like the form and color of the jailbird figure. Although this game is a pleasant exercise in skill, strategy and quick reflexes, the action is pretty redundant since you're basically doing the same limited activity over and over. Initially you may find this quite a challenge but, except for the action speeding up, there are no other variations in play and, at this point in the evolution of the video game, I expect more activity.

Microsurgeon (Imagic)

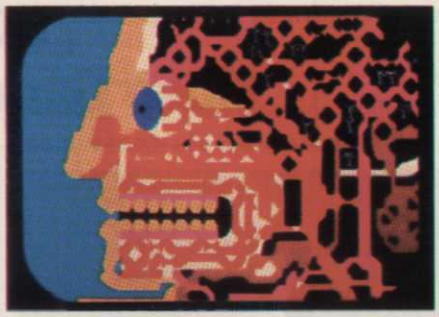
Obviously inspired by the 1966 hit movie *Fantastic Voyage,* which concerned a team of "brilliant" scientists who shrink themselves down to microbe proportion and travel in a microscopic ship through the body of a man in an effort to save him by destroying the microbes that are killing him, **Microsurgeon,** an Imagic game for the Intellivision system, is an interesting effort. Here you control a highly-mobile probe through the head and torso of a human smitten with a host of diseases.

The game begins by choosing the overall condition of the patient and the amount of surgical difficulty you'll encounter. You pilot the probe, which has a finite amount of power which is depleted with the discharge of three different types of medications, each for combating different diseases. There are antibiotics for destroying bacteria, aspirin for viruses, and ultrasonic rays for everything else. The probe travels along arteries and veins via the disc controller and you fire the appropriate medication by pressing the side buttons in combination with the disc that determines the direction medication is projected.

A chart describing the status of the various organs of the body is pictured along with the location of the probe. The condition of the organs is designated from good to critical and when you've exhausted all your power the game is over and the degree of your success as a microsurgeon is determined by the condition of your patient at that time. The size of your fee is proportional to that condition. If you pilot your probe out before all the power is depleted you're awarded an additional $200. Also the computer takes into consideration the degree of difficulty you've chosen and the condition of your patient at the onset of microsurgery in determining your success.

Refer to the status chart to determine your priorities during surgery, then go to the most critical areas first and choose the appropriate medication. Shoot at bacteria and viruses quickly because they tend to disappear rapidly. Try to keep the probe along the blood and lymph vessels, but don't hesitate to go outside them to attack a disorder when it's faster than going along those routes. When traveling to critical areas constantly zap blockages of arteries along the way to improve the condition of the heart.

Imagic makes good use of the graphic capabilities of the Intellivision system



with a scrolling, extensively-detailed diagram of the body bursting with vivid colorful representations of many organs and systems, but sound effects are limited to heartbeats and the rush of air the lungs exhale and inhale. For all the great graphics and attention to detail the game lacks excitement, since all you're doing is gliding along and zapping video microbes. Although at first it appears to have some educational value, in reality the game presents a distorted representation of human biology. Aspirin is only a pain reliever and is useless against viruses, and ultrasonic waves will not eradicate tumors. Even the aspect of having the probe attacked by white blood cells is erroneous since white blood cells only attack organic invaders.

On the whole, however, Microsurgeon is a decent shoot-'em-up with a twist. But you run out of energy units too soon, considering the vastness of the area you're allowed to roam about. I do like the video representations offered, but wish Imagic would have done more with them as far as player activities go. There's just not enough microsurgery in Microsurgeon. ▲

Image Makers

UCLA's Conference on "Video Games and the Graphic Designer"

By David Rowe

"The video games business is a tremendous democracy," says Roger Hector, president of Sente Corporation, an arcade game manufacturer based in California's infamous Silicon Valley. "A company can develop a game and take it to market with all the hoopla in the world, but it's the people who will decide if it is to be successful."

Hector's words are echoing through a conference room at the Los Angeles Ambassador Hotel. Over 200 people from all across the country gathered here in March for a two-day UCLA Extension conference titled "Video Games and the Graphic Designer." Some in the audience are, indeed, graphic artists interested in breaking into the lucrative business of video game design. Yet most are "corporate types" already in the business, working for big companies like Atari, Activision, Imagic and others. While each comes with his or her specific purpose in mind, there is an overriding common denominator: The romance of video games has finally begun to wear thin. Technological wizardry is no longer pulling its weight at the cash register or on Wall Street. The game-buying public wants more magic from the new releases, and if it doesn't get it, it's going to look for the next big thing.

The time has come to put aside our lasers and photon torpedos and establish the groundwork for the future—as an industry. And the key, it seems, is in the hands of the graphic designer.

"The quality of graphics of early video games is reflective of how engineering decisions triumphed over esthetic ones," says Ruth Iskin, the UCLA Continuing Education Specialist who conceived the idea of the conference. "But the time has come when decisions made in the field of electronic games will necessarily have to be esthetic as well as functional. The purpose of this conference is to pave the way for graphic designers making the transition from the printed to the electronic media."

As an art historian, Iskin is well aware of the problems that have confronted graphic designers over the centuries. Video games, she says, represent an emerging and expanding industry, one that can be mutually beneficial for the visual artist and the corporate powers that be. For the most part, however, graphic artists have been slow to take up the computer aided medium, largely because of the corporate dogma associated with its over-emphasized business applications.

"I think the new technologies can be enhanced as creative people become more vitally involved," says Iskin. "But for that to happen, designers must be made aware of the avenues available. They need the help of people who are actively involved in the industry."

Getting that help has been far more difficult than Iskin originally expected, however. Businesses that deal in high-tech trades are known to be tight lipped about their methods of operation, but there is no sector more secretive than

Telesys' Lindy Jansen attended the conference "to establish contact with independent video game designers."

Photos by David Rowe

Mike Oliphant, of Sierra/On-Line, with his first independently-designed game, Wall War.

electronic game manufacturers. Though she hoped the inroads she'd made while planning University Extension courses in computer-aided design would lessen the drudgery of the task, she admits that it didn't. Without a contact in the field,, her idea was all but shelved. Then she met Steven Sidley, a software specialist at Western Technologies in Santa Monica, California.

Sidley, a UCLA computer sciences graduate, began his corporate climb in the data processing field. Yet, like many bit-buffs, he spent a good deal of his spare time hexing-out game programs on his micro at home. The synthesis of graphic design, high technology and entertainment had captivated the lad, and that fascination eventually resulted in a full-time desk job with Western Technologies—an independent software publisher.

Sidley was introduced to Iskin through a mutual friend and that meeting was the genesis of the UCLA Video Games conference—the first of its kind. Foremost among their goals, says Sidley, is the legitimization of video games in general, an issue that has long tormented industry sympathizers. They chose to approach the problem by assembling the industry's most respected professionals to lecture in an academic environment. And the primary student is the graphic designer.

"Graphic designers come out of school and are interested in this field because of its intrinsic artistic values and the promise of financial rewards," explains Sidley. "We want to address the person who has decided to make a career in video games, but wonders how the hell to get into the field in the first place." A third objective, he says, lies in bridging the gap between the graphic artist and the engineer/programmer, which is perhaps the most pressing issue now facing video game corporations.

Sidley began organizing the two-day event with these goals in mind, seeking to address them on three fronts: arcade games, home video games and home computer games. The structure would be typical of most conferences—lectures and discussion panels—so formatting the event was relatively easy. The real challenge arose when it came time to convince the industry to participate.

Sidley explains: "When I started organizing the speakers, I called every company from Atari to Mattel. Let's take Mattel, for example. I must have made 100 phone calls to everybody from the president downward. It finally came out that its corporate policy is not to speak at 'outside' conferences; they're fearful that a trade secret might slip."

Atari posed a similar problem and Sidley admits he gave up there when the company explained it "doesn't do this sort of thing." Fortunately, co-coordinator Iskin persisted with the Warner Communications giant and ultimately succeeded in convincing industry-renowned game wizard Chris Crawford to accept a speaker's post.

Paul Cubbage, of RHB Computers, is searching for "the next generation of Star Raiders."

One by one, other speakers followed suit. The final line-up included such heavyweights as Imagic's Michael Becker, Sega's Lane Hauck and Roger Hector of Sente, a wholly-owned subsidiary of Nolan Bushnell's Pizza Time Theater chain.

The real surprises, however, are in the audience, for it comprises an equally impressive roster. Like the panelists, they,

Sente president Roger Hector lectured on "The Future of Video Graphics."

too, choose their words with care when asked to explain why they've come here. And when the topic of conversation focuses on their company's current projects, the shields are quickly raised.

Moses Ma, a scientific and financial consultant, is a case in point. Ma admits he's here to see exactly what Hector and company have up their sleeves. (Hector's opening day lecture is on "The Future of Video Graphics.") But that is about all Ma will say, with the single clarification that he is with a start-up company called Xand (pronounced Zand). Whether the company will manufacture hardware, software or anything at all, Ma will not say.

At the other end of the spectrum is Paul Cubbage, a senior program manager with RHB Computers, and recently of Atari, where he headed up the computer division's Program Exchange (APX). Cubbage politely explains that RHB is the temporary title for a Silicon Valley hardware and software manufac-

turing company founded by Atari home computer ex-president Robert H. Badertscher. Cubbage has come to Los Angeles to meet and interest graphic designers in the RHB machine. "I'm also somewhat curious to find out what is happening in the field," he admits. "I am particularly interested in finding out what sort of tools the designers want —what they feel they need in order to do good game designs."

Cubbage says that RHB will market an "IBM compatible" personal computer that initially will be marketed on the magnificence of its game play, or so he hopes. Ideally, says Cubbage, "I'd like to find the next generation of Star Raiders," the game that powered the Atari 400/800 home computers to prominence. Even so, the Star Raiders equivalent today must necessarily be an entirely new experience in video gaming. Cubbage knows this and looks to the visual artist to help make that quantum leap. "I believe what is going on in video games is art," he says. "The people going into it are artists. It just hasn't been recognized as such."

Cubbage's point of view is echoed by panelists who hold that video games are, in fact, the artistic expression of today's technological tools. Yet one question remains: Have the games attained even the most rudimentary level of "artform?"

"It's a long way from Pac-Man to Picasso, from Berzerk to Beethoven," says Atari's games design research supervisor, Chris Crawford. "Video games have the *potential* of being glorious works of art. In reality, they are jumpy and klunky."

Crawford's early morning lecture,

Atari's Chris Crawford's lecture, "Artistic Elements in Game Design," was one of the most well-received events.

Moses Ma, Xand Corp., was there to listen more than talk.

titled "Artistic Elements in Game Design," is one of the most well-received events of the entire conference, and will later be referred to by Sidley as the unifying theme of this two-day pow-wow. Crawford's animated personality and outlandish delivery are more stimulating than the twin-tanks of coffee the audience drained prior to this 9 a.m. presentation. The group is attentive, receptive and inquisitive when it comes time to ask questions of Crawford.

"How does an artist learn the medium?" asks one person. "What are the artistic tools?" poses another. Then come the questions from the designers on the inside: "How should we deal with the engineer/designer catfight?" "Is there a high-level (computer) language for game design?" "Can you suggest areas for exploration?"

"Video games have been successful until now because of their novel entertainment value," Crawford replies. "Like candy, comic books and cartoons, video games are an intense sensory experience." And herein lies the danger. People eventually become bored with these types of stimuli, so they move on to more complex versions of the same entertainment.

"But there's nowhere for them to go with computer games!" he says. "Artistic creativity has not been emphasized in an industry dominated by engineers. We must seek out the artists and teach them to program. Think of the great artists in history. Ansel Adams—he was a technical master of photography. Beethoven—a technical master of music. It takes time, but we must learn to program computers."

Four out of five corporations would tend to disagree with Crawford. The perceived solution to the artistic dilemma is the "design team." In its most primitive form, a design team might consist of a programmer, a visual artist and a management-supplied referee. More complex teams could include a sound editor, a game play consultant, a writer and various other support crew. Sound familiar? No wonder, video game production is quickly beginning to adopt the concepts inherent in motion picture production. According to many of the speakers here today, the age of the one-man game is all but over.

"I agree," says Michael Becker, graphics supervisor at Imagic. "Artists

Michael Becker, Graphic Supervisor at Imagic, says "the real challenge for the artist is to learn to interact with the programmer."

should get hands-on experience with computers, but the real challenge is to learn to interact with the programmer."

Becker's point is well-taken, and certainly not surprising, coming from an employee of the company that virtually pioneered the video game design team. And the results of Imagic's stunning game graphics are proof that the technique can work. Still, there will always be the problem artist who just can't seem to fit the corporate mold. Independent game author Michael Oliphant is a case in point.

"I worked at Mattel for three years," says Oliphant. "They turned me into a manager. But at that point, I realized

Conference Coordinator Ruth Iskin tries her hand at DataSoft's Shooting Arcade.

that big companies were not the way to go, at least not for me. They can't adapt fast enough, they don't offer recognition for the games you've designed and they don't pay royalties."

Oliphant left Mattel armed with an Atari 800, three disk drives and an idea for a game that eventually became Wall War—his first independently-produced computer game recently introduced by Sierra/On-Line. In Oliphant's estimation, games that are designed by one person are more integrative "because it all stems from the same source." The outcome, he maintains, "is a product that is more personalized. At Mattel, they were having people help me with graphics. I didn't like that. I prefer doing the sound, the graphics, the whole thing myself. I want to be totally independent."

Conference coordinator Steven Sidley says the major objective of the conference was the legitimization of video games in general.

With publishing houses like Sierra /On-Line, the independent stands a fighting chance for survival. The typical scenario reads something like this: The game author submits his game to a publisher, much the same way a writer submits his manuscript to a publishing house. If the submission is accepted, the author is given an advance against the royalties anticipated from sales of the game. Once the game begins to sell, the amount of the advance is deducted from the revenues until the debt is repaid, and the money once again begins to flow.

Sound too good to be true? In a sense, it is. The lion's share of independent software publishers caters to the home computer market. If we're to believe Imagic's Becker, that market is growing, but still too small to support the vast number of games a company must sell in order to turn a profit. Hence, the overwhelming concentration on VCS and Intellivision software.

Of course, there will always be exceptions to the rule, and one of them is the Fremont, California-based Telesys Corporation. Telesys is not participating in the conference lectures or panel discussions, but public relations director Lindy Jansen is no less involved in the conference because of it. Jansen is sitting at the Telesys exhibit in the Game Room along with a number of other software manufacturers. But her intent is slightly unique. True, like all the others here, she is showing off the company's latest VCS titles, but Jansen has her eyes peeled for new talent.

"We're always looking for people who have something new. To be perfectly honest, that's why I'm here. We thought this might be a good place to establish contact with independent video game designers," she says.

Jansen explains that Telesys regularly receives freelance submissions in varying states of completion. From demo chips to conceptual drawings on graph paper, game ideas are coming to the company in all forms. Even Jack Woodman, Telesys' marketing vice president, has gotten in on the act. According to Jansen, the Telesys executive had an idea for a game while he was eating a hamburger. He sketched the idea on a napkin, and that sketch led to the development of Fast Food, one of the company's best selling games.

Though Jansen's story may sound outrageous, it is not unusual, nor is her frankness about scouting the conference for future designers. As the conference wound down on Saturday afternoon, Sidley and Iskin remarked that numerous scouts have approached them for leads on designers. Sidley reports that Atari has gone as far as setting up shop in a nearby hall in the hotel and has been interviewing prospects throughout the duration of the conference.

Sidley says he is delighted by the unexpected circumstance. In fact, he says next year's conference may well offer an interviewing service to help augment the process. But that's the point. The video games industry is reaching out to the visual artist in the hope that he or she can provide the ingredient for continued growth, for continued magic. As Chris Crawford phrases it at the close of his talk, "The industry is doomed unless it makes a commitment to artistic creativity as its number one priority. If we fail, video games will quickly become a vast wasteland. If we succeed, the games can easily express the entire realm of human experience." ▲

David Rowe is the editor of Video Store Magazine, The Journal of Video Retailing.

A Movable Feast

Vectrex Serves Up a New Array of Games and Features

By Anne Krueger

Where once the basic configurations of a given home game system seemed to offer finite operational capabilities, recent developments, along with the introduction of second and third generation units, have proven that what we see might only be a portion of what we might ultimately be able to get. This is obviously the case with the news coming out of General Consumer Electronics. A wholly-owned subsidiary of Milton Bradley (233 Wilshire Blvd., Santa Monica, Calif. 90401, (213) 458-1730), its self-contained home arcade system, Vectrex, is about to feature a considerable number of game and program options, as well as some expanded functions.

Still a uniquely portable model, with its own built-in monitor and control panel, where on-screen images serve up arcade-like vector graphics rather than the more traditional raster graphics found in other home systems, the Vectrex always offered an eight-bit microprocessor with 64K ROM capacity and the possibility of even greater things to come when it was originally introduced just a couple of short years ago.

Well, GCE has stopped hinting and is now ready to deliver. In addition to a number of new games (see sidebar), a light pen and special cartridges are also being announced. But that's not all. A Vectrex 3D-Color Imager and color games (to combat the one complaint many had with the system since it was only black and white relying on color overlays for some tonal effect) are on tap along with a computer adaptor and keyboard, a stringy-floppy storage device and educational computer games. In addition, by early 1984, GCE promises a printer, disk drive and modem for Vectrex, and will introduce more programs designed to marry voice to visual displays and action.

Photo by Perry Greenberg

Vectrex Light Pen

If GCE's first peripheral for the Vectrex is a sign of things to come, system users are in for a pleasant future. The Vectrex Light Pen allows you to sketch, connect dots, even animate. With nationwide availability due this September, and a retail price of less than $40, the total package will include a black molded-plastic pen and an art cart. All in all it's a wonderful bag of tricks that will even have parents admitting there's educational and entertainment value to be had.

The pen, which resembles a big black magic marker, plugs into the main unit via the second controller port at the front. It features the same curly cord that connects the Vectrex controller panel to the main unit and works in tandem with the four-button panel. The art cartridge, to be called Art Master I or Art Cart I, fits into the same side port as other Vectrex games.

After playing the usual Vectrex musical ditty, the light pen menu appears: Sketch, Connect, Animate. To choose, simply point the pen at the desired selection and the other choices will disappear. The program begins about one second later. Let's start with **Sketch**.

The light pen guides a cursor on the screen so the user knows where he is at all times. Moving the pen around without first aiming at the cursor will get you nowhere. To make vectors appear, you must guide the pen with one hand while continually pressing the first controller button with the other. This shouldn't be a difficult task to master, even for little hands. The length of each vector depends upon the speed with which you're moving the light pen. Someone drawing very slowly will have a picture composed of very short vectors. Draw more quickly and you'll have a composition of longer lines, while varying the speed of the pen movement produces a mixed and matched display.

The wonderful thing about the light pen, however, is that the drawings don't have to consist of just one connected line; a vast improvement on the old-time Etch-A-Sketch. By simply not pressing controller button number one, you can guide the cursor to another spot with the light pen and begin drawing independently of the first shape or line. This allows the creation of all sorts of shapes,

including circles, and even writing, as well as printing words, is possible depending upon individual skills. It's also possible, however, to run out of vectors, so it's best to keep drawings relatively simple. Filling in parts of the drawing (like coloring) is almost impossible and definitely will use up all your vectors before you know it.

In the Sketch mode, button two can be used to create what's called a rubberband vector. By pressing button two and moving the cursor at the same time, a long stretchy line will appear. This rubberband will follow the pen. Once you let go of the button, the line stops stretching but doesn't disappear. Doing it all over again, though, will create another, and another rubberband vector. In my best drawing, I managed to make a crude character's nose hair get shorter and longer with this feature. Probably not very educational, but it can be amusing for latent animators.

To erase what you've drawn and begin again in the Sketch mode, just aim the pen at the word "erase," positioned at the lower right of the screen and, by pushing button three, the board will be wiped clean for another try. The word "menu" also appears at the lower right and the same pen and button three process will return you to 'play' options.

Connect

In this mode, guiding the pen again automatically moves the cursor. To draw dots, press button one and move the pen while, just as in the Sketch mode, moving the cursor to another spot without adding a trail of dots involves releasing the button. Button two again allows you to create rubberband vectors, but the interesting button here is number four. By pressing it, almost magically, all the dots are instantly connected. You then can add to the drawing by sketching with vectors, as you did in the Sketch mode, and then pushing button four again, revert the entire drawing back to dots. Erasing or returning to the menu is again accomplished via button three and the pen.

Animate

Animating works a little differently from the other modes and is also more difficult, but is, by far, the most fun. When you choose the Animate feature, a Create screen will appear on the Vectrex. To draw your initial effort, aim the pen at the screen and press button one to get the cursor to appear. Wherever you aim the pen and push the button will be the starting point for your creation.

To create a line, aim the pen at any other point on the screen and press button two (A square appears around the point when the pen has found it). Continue this process until the figure is completed. If you'd like to adjust the figure before going on to the Edit mode, aim

your pen at the desired point and press button three. The rubberband vector will then enable you to stretch that part of the figure the pen is aimed at.

When completed, there's a choice of the three commands at the bottom of the screen: Next, Erase, Menu. To use any of these menu selections, aim the pen at the appropriate word and press button three. The word will brighten when the connection is made.

Pointing at the word "Next" moves you into the Edit phase where the animation process begins. No more vectors can be drawn at this point. The words at top will read: Edit FR (frame) 2. There are nine frames in all. At the bottom of the screen, once in the edit mode, five commands are displayed. **Next** advances you to the next frame, on up until frame number nine. **Last** allows you to go backward to look over the frames you've already completed. **Play** places your drawings on the screen, playing them one after another to give the animation effect. **Create** wipes the slate clean and returns you to the create mode, while menu returns you to that display of Sketch, Connect, Animate.

Once in frame two, aiming at any point, while pressing button three and using your pen, will move that point and allow you to alter your figure. After each alteration, point the pen at "Next" and press button three. By pressing button four, you'll be able to see the last figure as you're altering it. The vectors indicating the previous figure will be slightly paler. Once you're finished editing your figure in frame nine, watch your animation in action by pointing the pen at "play" and pressing button three. Pressing button three again (and again) will slow down the figure's movement, while doing this with button four once or several times will speed the movement into a frenetic state. If you wish to remove the words from the bottom of the screen to allow more room for the animation, or to lessen the flicker on the screen, press button one. Pressing it again will make the words reappear.

With this animation feature, crude figures can walk across the screen, shapes can whirl and twirl. . . the possibilities are endless.

Light Pen Cartridges

Other cartridges for use with the Vectrex Light Pen are in the works and include Art Cart II, III and IV, a musical cartridge (tentatively titled Music Maestro), and a game called Mail Plane.

The music cartridge will allow you to compose music, even three-part harmony, by combining visual and aural mediums. A piano keyboard appears on the screen and the light pen user will be able to watch musical notes fly across the screen at the speed they're playing. (1/16th notes will go twice as fast across the screen as 1/8th notes, etc.)

Mail Plane is a geography-related game which provides mail assignments. Instructions come up on the screen and the pen is used to fly the plane and deliver mail to different parts of the country. Plan the trip well or a fuel problem will result. As the player moves the light pen around the globe, the perspective will change and the globe will move allowing you to zoom into more than 50 cities on the globe to deliver the mail in rain, sleet or snow.

Color-3D Imager

Also due to hit stores this fall is GCE's Color-3D Imager for the Vectrex. This peripheral will bring true 3D (not perspective) graphics and an almost infinite range of colors (even mango) to the system, eliminating the future need for the color overlays as is the case now with existing games. Retailing for less than $50, the Imager will plug into the side cartridge port with a new game port being part of the expander. Three new Vectrex color games, for under $40 each, will also be available at the same time as the new Imager. One thing to realize is that it won't make your whole library of existing cartridges play in color and will only work with the new series of color carts that are upcoming.

Vectrex Computer

Joining the ranks of other game systems which are expanding their capabilities, the Vectrex can become a computer this September, for about $99, when a 16K RAM and 16K ROM computer adaptor and keyboard will be available. The adaptor sits underneath the main unit and the 55 raised-key keyboard plugs into the front of the system. BASIC computer language will be built into the memory-expandable computer add-on so users can take it home and start computing right away. A stringy-floppy storage device, to sell for less than $80, combines the qualities of both a cassette and floppy disk.

As for software programs, five cartridges are being designed to educate and entertain younger users and will cost less than $40 each. One of them is the first program in a Vectrex Create Your Own Video Game series. Once basic programming skills are learned, individuals can then incorporate maze or climbing

A Vectrex Hit Parade

The creative element at GCE has been marked by a flurry of activity lately, with the designing as well as licensing of a number of new titles. Some games, which you may have seen on store shelves already, include Bedlam, Rip Off, Star Hawk, Space Wars, Solar Quest and Cosmic Chasm. Each sells for between $29 to $35. Other efforts set for summer release include Spike Speaks (a talking game), Web Wars, Fortress of Narzod, Spinball and Heads-Up (soccer), all at approximately the same price point.

Of the games now on the market, **Bedlam** is the first fantasy adventure in the Vectrex Terrestrial Adventure series. GCE calls it "the ultimate test of quick reflexes and challenge," where players use the joystick to move and button four to fire in their battle against menacing aliens which are attacking from all directions. Bizarre sound effects and a six-point star color overlay add to the intensity of the geometric battleground while one or two players can choose from three different levels of game play.

Rip Off, the licensed home version of the Cinematronics arcade game, pits you and your eight fuel cells against some very sneaky pirates who dart in to nab the cells and then try to escape. The quicksilver characters, which scuttle faster as the game progresses, don't mind attacking either and the game ends when all your cells are stolen. For one or two players (two at once against the pirates gives you a better chance of winning), there are six different game play options.

In another Cinematronics-licensed game, **Star Hawk**, you're in a race against the 60-second timer to pick off flying objects and protect your planet from the infiltrating alien ships. The joystick is used to aim the gunsight and button four of the controller panel is used to fire. One or two players can choose from two game play options.

Space Wars (Cinematronics) is a shoot-'em-up, intergalactic warfare game. It offers seven game play options for one- or two-player action, where you steer a ship via the joystick, thrust with button three on the controller panel and shoot lasers with button four. Button two, which is used in emergencies, relocates you to a different spot on the screen—sometimes in a more troublesome location than before. While battling the opposing spaceships, it's wise to avoid the revolving sun in the center of the game, since hitting it or the alien ships will also destroy your craft.

Solar Quest pits your spaceship against alien vessels. Your weapons are rockets or a Nuke button which destroys a group of aliens all at once. Once an alien ship is destroyed, you can pick up more points by firing at, or flying over, the remaining ship particles before the gravity of the rotating sun lures them to the center. Come into contact with the aliens and you'll lose a ship while you're using button four to fire, button two to Nuke and button three to thrust. This Cinematronics license is a one- or two-player game.

Your mission in GCE's **Cosmic Chasm** is to travel on an alien planet to its center through the underground maze. Once accomplished, you must plant a bomb and then get out before it explodes. A map of the planet's caves and caverns is displayed and you must determine which is the most direct path to the center.

One or two players use the joystick to move the ship, button three is for thrust, button four fires dual lasers and button two surrounds the ship with a force field. Planet Protectors will try to thwart you in each cave or cavern you travel through, but once you've destroyed them, push button three to turn your ship into a drill. Then, by thrusting carefully and drilling, you can pass through the force field into the next cavern. Thrusting too hard, or taking too long, will result in disaster.

Even Newer Games:

GCE's **Spike Speaks**, the first talking cartridge for the Vectrex, is part of the Terrestrial Adventures series and works without a voice interface. The main character is Spike, who is out to save Molly from the villain Spud. As Spike you must collect keys to the prison where Molly is being kept, and overcome all types of obstacles including walking on moving sidwalks, which contain perilous gaps. Molly's vocabulary consists of "Eeeeek, Spike. Help!", while our hero blurts "Oh No! Molly," and

techniques into a game and work on a series of 3D planes. The game programmer also will learn about perspective—making sure closer objects appear larger while those farther away are smaller. The second planned cartridge is a more sophisticated computer version of the Music Maestro. The third—an art program—will introduce children to the LOGO drawing language as well as beginning animation.

Finally, the fourth and fifth cartridges will delve into the science arena. One will be based on basic scientific topics while the other has a solar system theme. In this cartridge, the task will be to ensure that satellites are orbiting in the right place, while ailing satellites must be fixed, all the while keeping track of fuel levels.

Activity booklets will also be packaged with each Vectrex computer game as well as with the Light Pen cartridges, offering program variation suggestions, exercises and new uses. In the case of the computer programs, each booklet will be written by an expert on the subject.

Computer Peripherals

Slated for a 1984 release are even more goodies including an inexpensive printer for the Vectrex, a disk drive and a modem. GCE's philosophy is that owners of their system will need only a less-expensive printer because they'll be able to hook up to more sophisticated professional models via the modem in addition to several other available sources. And, rounding out the announcements, are the plans to release a word processing program by the middle of 1984. Undoubtedly, GCE has readied a push to more strongly position the Vectrex as a highly viable system for the Eighties. ▲

when he suffers a mishap or comes upon an obstacle, "Darn it." Spud is a speechless villain.

The year is 2513 and, as the Hawk King in **Web Wars**, your aim is to capture the 20 different species of inhabitants in the Web of Fantasy. The joystick and all four controller panel buttons are used in this new one- or two-player game. Button four is the blaster and is used to eliminate the guardian Drones protecting the Web. Button three activates the Hawk King's capture rod, to be used when one of the species is sighted and is directly in your flying path, while the joystick controls the speed and positioning of the Hawk King.

After you capture one of the creatures and have deposited it in the trophy room (by flying through a convenient hole in the web), press button one or two to return the Hawk King back into the fray. After collecting 20 trophies, you're faced with the Cosmic Dragon, your final foe. Web Wars is the first game in the Vectrex Intergalactic Missions series.

Also look for another Intergalactic Mission—the **Fortress of Narzod**—a one- or two-player game with three skill levels. You, the good wizard, are in charge of six hovercraft trying to travel three mini-roadways (screens) to reach the evil wizard, Narzod, and destroy him. DoomGrabbers, deadly Spikers, Tarantulas and Ghouls attack you and, if that's not enough, your own fire can ricochet off the angled roadway walls and come back to destroy your own hovercraft. Warbirds swoop into the picture in the middle roadway and start firing on you in the final roadway. If you're lucky enough to reach the Fortress of Narzod itself, you end up face to face with the Mystic Hurler. If you blast him (six times will do it), you get to watch the entire evil scenario disintegrate—a very gratifying experience.

Spinball, a pinball thriller, and **Heads-Up Action Soccer** are two new Vectrex games in the Sporting Encounters series. Soccer pits you against the computer or another person in fast-paced sports action. GCE says Spinball combines sharp hand-eye coordination and pinball fun.

Newest Games:

Also on the GCE drawing board for the Vectrex for later release this year is **Dark Tower**, based on the Milton Bradley fantasy board game. GCE reports this version will incorporate 50 percent more memory than previous games, giving it a different style and increased difficulty level.

Also slated for later release this year is **Pole Position**, a Namco arcade game license, and **Star Castle**, a Cinematronics license. **Polar Rescue** is Vectrex's own 3D underwater creation which puts the player in the submarine driver seat. Two other games are also slated to hit the store shelves later this year.

—*A.K.*

HARD SELL

The Amazing Atari 800

By Mark Andrews

The Atari 800, one of the first home computers ever built, is still one of the best models around. It isn't as young as it used to be, and doesn't have as many attractive little convenience features as some more modern machines, but it can still hold its own against any other home computer on the market, including Atari's own new step-up model, the 1200XL.

This isn't to suggest that the Atari 800 is a perfect computer. It does have its shortcomings, and now, with so many shiny new competitors on the market, its flaws are more noticeable than they've ever been. But it's a real tribute to the computer designers at Atari that the 800, now four years old, and, thus, practically primeval by computer-industry standards, has stood up as well as it has against the ravages of time.

The price of the 800 dropped significantly during its tenure. When it made its debut, it listed for more than $1,000. Today, if you shop around carefully, you can get one for less than $400.

Birth of a Classic

The Atari 800 was born back in 1979, just two years after the advent of the Apple and long before there was any such thing as a home computer market. The 800's creators weren't sure who'd buy their computer, or, indeed, whether anyone would buy it at all. So they simply packed everything into it that they could, with the result being a cross between a business-oriented personal computer and an ultrasophisticated game machine.

Their brainchild was a color computer 15½" wide, 12½" deep and 4½" high

The Atari 800, a modular system with a host of peripheral accessories and software options.

—a monster by today's standards. But back then it was the closest thing there was to a compact computer—lighter than a portable typewriter and considerably smaller than an Apple II.

Their new computer had a hinged door on the top of the keyboard console and beneath the door there were two plug-in slots for game cartridges, language cartridges, or any other kind of solid-state software that one might decide to design. On the front edge of the console, just below the keyboard, there were *four* joystick ports, which were able to accept Atari's VCS joysticks and game paddles.

Extending from the rear panel of the computer was a wire, which could be connected, via a game-type switch box, to the antenna of a standard television receiver. And on the right-hand side of the console was a horizontal panel on which were mounted, from back to front, a power-supply input; a power switch; a toggle control for operation on channel 3 or 4; a port for connection to a cassette recorder, a disk drive or an interface module; and an unmodulated DIN-type audio-video output for a video monitor.

Accessories were also introduced along with the 800 and included a cassette data recorder, an acoustic telephone modem, two line printers (a 40-column-thermal unit and an 80-column impact dot-matrix model), and a 5¼" disk drive. In addition, for customers who wanted to combine all of these components into a complete home computer system, Atari introduced a serial/parallel interface module that made all of the necessary interconnections possible.

The Atari 800 Today

The Atari 800 looks just like it did when it was unveiled, and most of its specifications are exactly the same as they were then. But some major internal changes have since been made.

Its operating system has been redesigned to eliminate some early bugs; a new disk has been written to replace the original one; and some fairly serious flaws that originally existed in the computer's matching disk drive and 80-column printer have been removed. In addition, one of the 800's graphic-generating chips has been replaced with another that's more powerful, and memory capacity has been expanded. Originally, the 800 had a 32K random-access memory (RAM) capacity that was user-expandable (with the addition of plug-in cartridges) to 48,000-plus typed characters, or 48K. Today, every Atari 800 comes with 48K RAM.

A BASIC language cartridge also comes with the machine, and software that can be used for writing programs in most other popular personal-computer languages, including FORTH, LOGO, LISP and assembly language, is available.

Despite the powerful capabilities of the 800, and the workhorse accessories that were designed to go with it, it was obvious from the beginning that one of the computer's most important selling points was its game-playing capabilities.

The heart of the computer was, and still is, the 6502 microprocessor chip: the same chip found in Apple, Commodore and Ohio Scientific computers. But the 800 also had two other chips that gave it some spectacular graphics capabilities. One of these chips was called ANTIC, and the other was called CTIA.

ANTIC, a full-scale microprocessor chip designed by Atari, could compile graphics data from all over a computer's RAM, not just from one small block of memory. With the help of CTIA, another sophisticated chip, ANTIC could generate six different text modes, eight different graphics modes, and 128 different colors. In addition, it could mix and display as many of these modes as desired in an almost unlimited variety of ways on a color TV screen.

The ANTIC chip is still used in all of Atari's computers, and also in the Atari 5200 video game system. But ANTIC's companion chip, the CTIA, has now been succeeded by a newer processor, the GTIA, which is even more powerful. In computers equipped with a CTIA chip, nine different text and graphics modes can be called from BASIC. With GTIA, BASIC can support 11 different text and graphics modes. GTIA has also increased the number of colors that can be used in a screen display at the same time, and has made it easier for programmers to use many more colors in screen displays.

In the four years since Atari introduced its Model 400 and 800 computers, some other manufacturers (such as Commodore) have developed graphics microprocessors that are comparable in some ways with ANTIC and GTIA. But, overall, the ANTIC and GTIA chips have not yet been matched, and the graphics capabilities of the Atari 400/800 and 1200XL are still generally acknowledged as the most advanced in the home computer industry.

The Atari 800 also contains one of the best sound synthesizing systems in the business. It covers just three octaves, but has four independently-controlled sound channels. The 800's sound generator can create extremely lifelike effects and, with the right software, can be used as a voice synthesizer without any additional hardware support.

Atari has made available a line of game software that's designed to take advantage of the many capabilities of its computers. Dozens of the world's top arcade games, like Pac-Man, Space Invaders, Asteroids, Missile Command, Defender, Galaxian, Centipede and many more, either were created by, or have been licensed to, Atari. And Atari isn't the only manufacturer of 800-compatible games. Dozens of independent software companies offer 800–compatible computer games on cartridge, cassette and diskette formats.

Choplifter, by Broderbund, the best-selling Apple game in history, is also available on an Atari disk now, and has already climbed to the top of the charts in this version. Other bestsellers now being offered for Atari's 400/800 and 1200XL computers include Frogger (SierraVision), Zaxxon (Datasoft), Demon Attack (Imagic), Miner 2049er (Big Five Software), Flash Gordon (Fox Video Games), Shamus (Synapse Software), K-Razy Shootout (CBS Software), Apple Panic and David's Midnight Magic (both from Broderbund), Castle Wolfenstein (Muse), Ali Baba and the Forty Thieves (Quality Software), Preppie! (Adventure International), and many more. Three excellent new games for Atari computers are Blade of Blackpoole (Sirius Software), Jumpman (Epyx) and Astro Chase (First Star Software).

Blade of Blackpoole is a text adventure game that comes on diskette. The object of the game is to recover a magic sword, called Myraglym, and to return it to the altar from which it was stolen. When the game begins, you're standing near a lake surrounded by scenery

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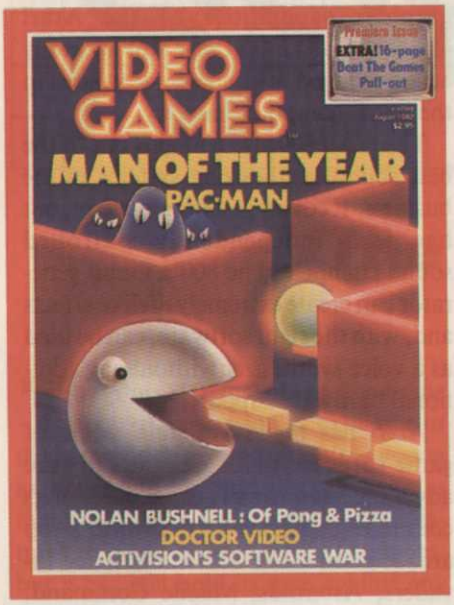

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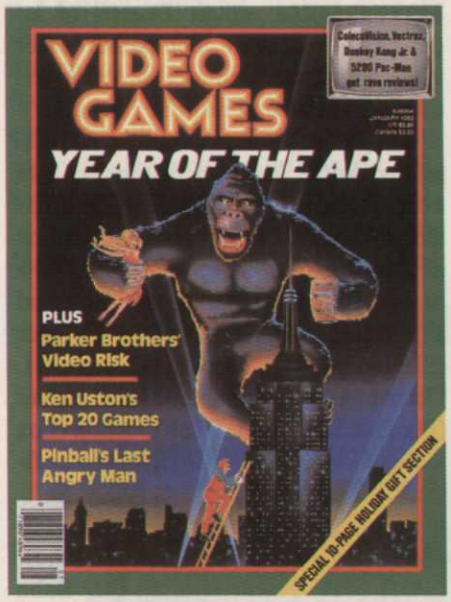
Interview: Nolan Bushnell; features on Pac-Man, Activision and home computers; reviews of Atari VCS, Odyssey² and A.O.E.; Dr. Video discusses video game therapy; Special section: Beating the Coin-ops. . .

October '82
Interview: Tim Skelly; features on Coleco and *Tron*; reviews of Intellivision, Astrocade, Dig Dug, Zaxxon; "The Zydroid Legion" debuts; Special section: TV-game Buyer's Guide. . .

December '82
Interviews: Ken Uston and George Plimpton; features on Mattel, Bally/Midway and programming computer games; reviews of *Tron*, Atlantis, Pitfall, Caveman, the Arcadia 2001; Special section: Atari's 10th Anniversary. . .



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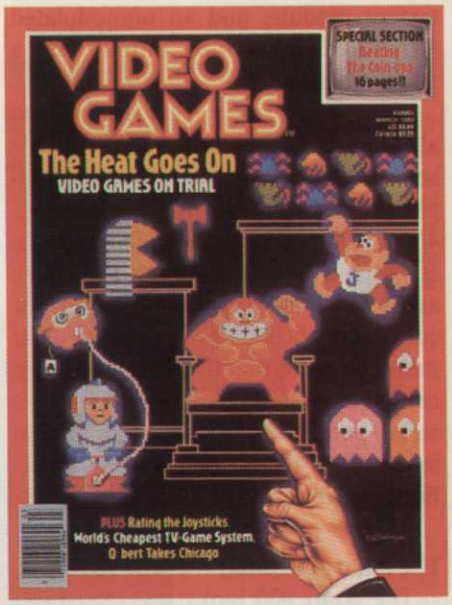
February '83
Interview: Ralph Baer; features on video game movies, cable-TV and the future; reviews of the Atari 5200, The Incredible Wizard and the '82 arcade scene; Dr. Video takes a look at video game violence; Special section: *Easy Home Computer* debuts. . .



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displayed in high-resolution color graphics at the top half of the TV screen. On the bottom half of the screen there are a few lines of text offering a few facts about your location. You can find out more information by typing commands on the computer keyboard and, as you carry out your quest, the text and illustrations serve as a kind of electronic picture book, helping you to visualize the action.

This program can understand many different types of short sentences and provides you with all of the answers you'll need to complete your quest, provided, of course, that you ask the right questions. And, you don't have to limit yourself to two-word sentences as you do in most adventure games. This program can understand such sentences as "Turn on the lamp" and "Move the rock with the lever."

Jumpman is a disk-based, arcade-style game with five variations and 30 game screens. Jumpman, a superhero with an incredible ability to jump, is the star of the game. Using a joystick, you must make him leap around skyscraper girders while avoiding such hazards as bullets, robots, vampires, falling concrete blocks, and much more. Each time you complete a level, Jumpman moves on to another screen. And as the going gets tougher, Jumpman climbs higher and higher, and so does your score.

Astro Chase is an exciting arcade-style space game. It takes place against a backdrop of planets and stars that are created at random and arranged differently every time you play the game.

You're in a spaceship cruising the universe, with a mission to protect the earth from deadly nuclear Mega-Mines. There are many different kinds of enemy ships which will destroy you if you don't destroy them first. You can arm yourself with shields (but only for a few seconds) and if you fly over certain planets or bump into others, they can drain your energy. There are more then 20 levels of play, and a zillion different dangers to watch out for. If your attention wanders for even a moment the earth is going to get it, and... Blooey!

Conclusion

When the Atari 800 was introduced, some critics said it was far too complex a machine to be used in the home. There were complaints about the number of wires that had to be used to string its components together, criticisms about the bugs that originally infested the system and gripes about the incomprehensibility of the documentation that came with the computer back then.

But most critics had high praise for the 800 itself. And over the past four years, as the computer's flaws have gradually been corrected, and its many hidden capabilities discovered, the esteem in which users and programmers hold the unit has grown.

Some of the unit's attributes are obvious. Its keyboard has a few shortcomings, most notably an inverse-video key where the right-hand shift key should be but on the whole, the Atari 800 has one of the most comfortable, fast and best home computer keyboards ever designed. And the computer console boasts a flip-top design that's one of the most "user-friendly" features ever incorporated into a home computer.

To insert a cartridge into an Atari 800, you lift a little lid at the top of the keyboard. This automatically turns the computer off so the cartridge won't be damaged. When the cartridge is in place, close the lid and the computer turns on.

But that is not the major benefit of the 800's pop-top design. When the cartridge lid is in its open position, you can turn a couple of thumb latches, and then lift the entire top of the console right off. What you'll see there is a bank of plug-in RAM packs, or memory cartridges.

When you buy an Atari 800, the RAM packs that come with the computer are all made by Atari. But because of the computer's flip-top design, RAM cartridges offered by independent manufacturers can be used. Some companies sell plug-in packs that can boost the Atari's memory capacity to 64K—the same RAM capacity as that of the new Atari 1200XL. And one manufacturer, Bit 3 of Minneapolis, makes a plug-in 80-column board for the 800.

Bit 3 calls its 80-column board the Full View 80. When you install the card in the 800, the computer becomes capable of generating an 80-column screen display—up to 80 letters and numbers per line across the video screen, instead of the 40-character lines used in Atari's standard text mode. Most word processors generate 80-column displays—so that full typed lines can be displayed on a screen—and with Bit 3's 80-column card, an Atari 800 can do the same. But the card has to be used with a professional-style monochrome monitor, since the resolution of the display it produces is too high for an ordinary TV set to handle.

Perhaps, as some critics have charged, all of this is a bit too much for a home computer to offer—a surfeit of riches, so to speak, for home-computer owners. On the other hand, isn't it better to have a computer you can grow into than a computer you're going to outgrow?

As you may have guessed by now, I'm an Atari 800 person. I've owned one since 1980, and the article you're reading was written on it, with the help of an LJK Letter Perfect word processor, a Bit 3 memory-expansion pack, a Bit 3 80-column board, and a high-resolution Sanyo green monitor. My Atari 800 is not just a word processor, either. It's also an electronic data bank, an electronic filing system, an electronic communications terminal, and an arcade-quality game machine. I wouldn't trade it in for any other computer in its class—not even a sleek new Atari 1200XL.

Why not? Good question.

The 1200XL does have a bigger RAM capacity than the 800 (64K, to be exact, compared with 48K for a basic Atari 800). But, thanks to my Bit 3 RAM expansion cartridge, my 800 is now a 64K computer, too.

The 1200XL does feature some neat extras, such as a built-in, self-diagnosis program and a built-in European character set. But features like those consume valuable ROM, and any good programmer can write software that will do jobs such as those—not every time you turn on the computer, but when you want them.

Finally, the 1200XL is a better-looking computer than the 800. But it has only two joystick ports instead of the four you'll find in the 800; it has one program cartridge slot instead of the 800's two; and it has a sealed cabinet design that doesn't permit, at this writing, the use of plug-in RAM packs or such add-on hardware as 80-column cards.

I'll admit that some computers can do more than an Atari 800. But no other computer on the market can do what an Atari 800 can do as well as an Atari 800 can do it. ▲

STATS

The Top 10 Home Games

Apr. 16	Apr. 12	Weeks on Chart	
1	5	3	Centipede (Atari)
2	1	7	Ms. Pac-Man (Atari)
3	2	13	River Raid (Activision)
4	7	7	Phoenix (Atari)
5	3	29	Pitfall (Activision)
6	4	31	Frogger (Parker Bros.)
7	6	13	Vanguard (Atari)
8	11	5	Donkey Kong Jr. (Coleco)
9	10	11	Dragon Fire (Imagic)
10	9	31	Donkey Kong (Coleco)

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These are the best-selling home video games compiled from outlets by the Billboard research department.

The Top 12 Arcade Games

May 15, 1983

1. Pole Position (Atari)
*2. Q*bert (Gottlieb)
*3. Front Line (Taito)
*4. Time Pilot (Centuri)
*5. Mr. Do (Universal)
*6. Baby Pac-Man (Bally/Midway)
7. Popeye (Nintendo)
8. Joust (Williams)
*9. Millipede (Atari)
10. Turbo (Sega)
11. Galaga (Bally/Midway)
*12. Moon Patrol (Williams)

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These are the top earning arcade games according to a poll of operators. Those with asterisks indicate operator responses were between 25-50 percent.

High Scorers

Baby Pac-Man	6,685,130	Richard Sattilaro Edison, N.J.
Bagman	262,700	Mike Miller Kenosha, Wis.
Buck Rogers	213,330	Bruce Borsato Trail, B.C., Canada
Burgertime	4,163,250	Chuck Coss Stubenville, Oh.
Centipede	15,207,353	Darren Olson Calgary, Alberta, Canada
Defender	75,865,375	Joe Carson Cheektowaga, N.Y.
Dig Dug	4,129,600	Ken Arthur Blackburg, Va.
Donkey Kong Jr.	953,500	Antonio Medina Napa, Calif.
Food Fight	1,464,400	Phil Brett Los Angeles, Calif.
Frenzy	4,789,909	Mike Mann Oak Park Heights, Mn.
Front Line	166,000	Bob Dziura Manchester, N.H.
Gorf	2,200,000	Jason Smith Midland, Tx.
Gravitar	4,722,200	Raymond Mueller Boulder, Col.
Joust (new chip)	33,167,250	Bob Weiss San Jose, Calif.
Jungle Hunt	1,045,780	Chris Knight Congers, Ga.
Liberator	1,449,250	Sean Middleton Anchorage, Alaska
Lost Tomb	1,072,980	Mark Rasmussen Ft. Dodge, Ia.
Millipede	1,720,392	Eric Ginner Milpitas, Calif.
Monster Bash	448,400	Bob Lynch Kenosha, Wis.
Moon Patrol (7 cars)	740,070	Eric Ginner Milpitas, Calif.
Ms. Pac-Man	347,400	Chris O'Brien San Diego, Calif.
Munch Mobile	1,161,480	James Turner San Diego, Calif.
Pac-Man Plus	1,509,910	Terry Franzen Normal, Ill.
Pengo (4 men)	809,990	Kevin Leisner Racine, Wis.
Pole Position	65,460	Mike Klug San Jose, Calif.
Popeye	317,850	Steve Harris Kansas City, Mo.
Q*bert	17,899,325	Ben Gold Dallas, Tex.
Quantum	1,029,160	Judd Boone Moscow, Id.
Robotron	252,115,350	Eddie O'Neil Durham, N.C.
Satan's Hollow	8,692,035	Michael Ward Madison, Wis.
Star Trek	974,475	Robert Purser Norcross, Ga.
Super Pac-Man	567,530	John Azzis Santa Monica, Calif.
Super Zaxxon	151,100	Gary Hatt Upland, Calif.
Time Pilot	1,892,000	John Roberts Plattsburgh, N.Y.
Xevious	327,460	Kim Jackson Seattle, Wash.

Our thanks to Walter Day Jr., of Twin Galaxies International Scoreboard (226 East Main St., Ottumwa, Iowa 52501). Readers who think they might have a high score should send a self-addressed, stamped envelope to Walter Day who will then forward the necessary information and forms. Cities given are the locations where the high scores were achieved.

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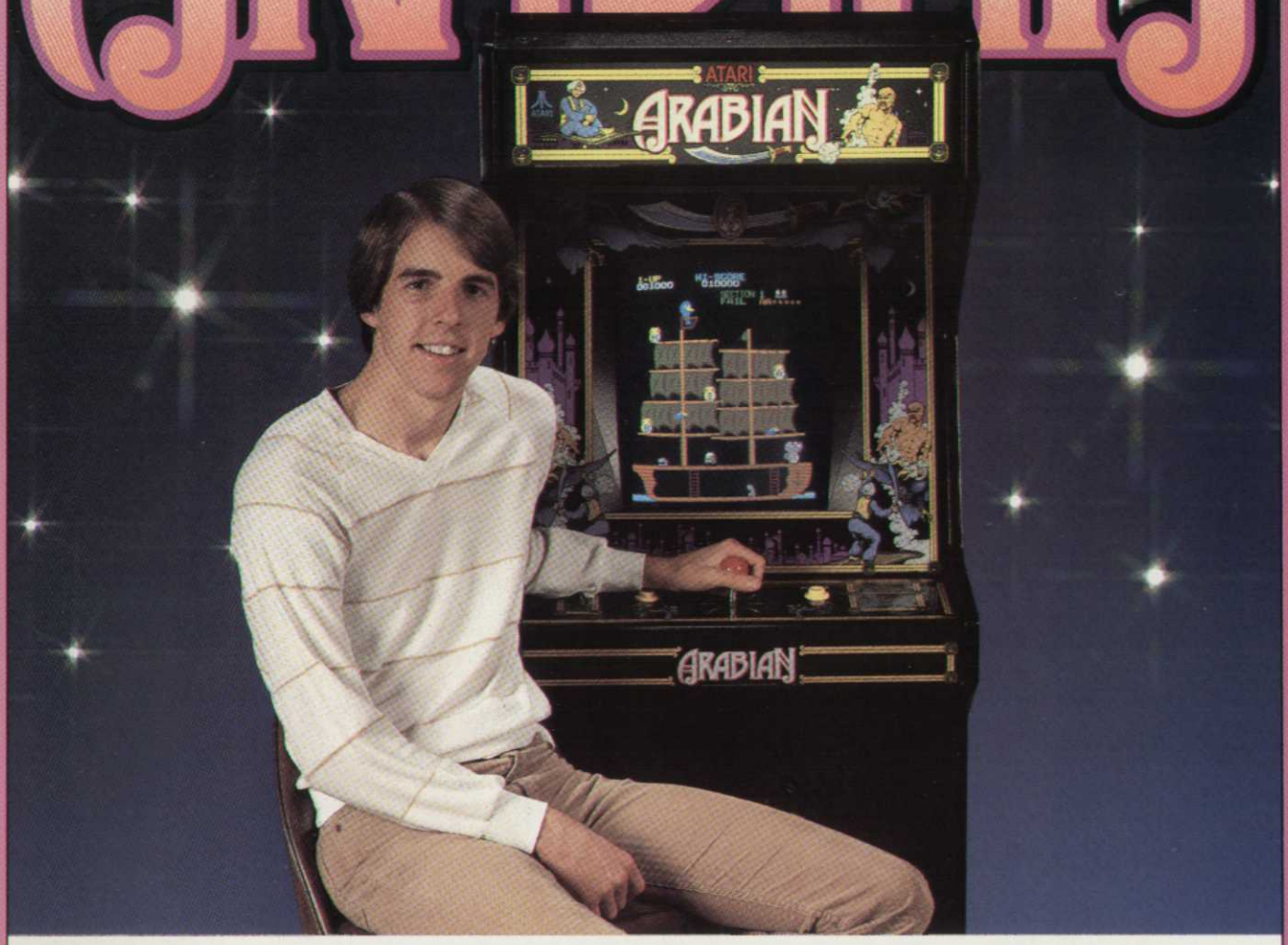

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It has lots of new features over the other games of its type. . . a variety of ways to move the Arabian character, multiple goals and a strong offensive capability with the kick button. And it has a neat storyline with really great graphics. Look for ARABIAN. I may have a jump on you, but you still have a shot at the world's record. So go for it."

Eric Ginner—World Records

Millipede	(current)	1,720,392
Liberator	(current)	4,057,950
Dig Dug[2]	(May 1982)	1,140,000
Robotron[3]	(August 1982)	112,000,000
Moon Patrol[4]	(November 1982)	740,070
Popeye[5]	(April 1983)	313,660

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